



Cake Mixing and Baking

AFTER READING THIS CHAPTER, YOU SHOULD BE ABLE TO:

1. Perform basic cake mixing methods.
2. Explain ingredient functions and the concepts behind formula balance.
3. Scale and bake cakes correctly.
4. Correct cake failures or defects.
5. Adjust formulas for baking at high altitudes.
6. Produce high-fat or shortened cakes, including high-ratio cakes and cakes mixed by creaming.
7. Produce foam-type cakes, including sponge, angel food, and chiffon cakes.



CAKES ARE THE richest and sweetest of all the baked products we have studied so far. From the baker's point of view, producing cakes requires as much precision as producing breads, but for the completely opposite reason. Breads are lean products that require strong gluten development and careful control of yeast action during the long fermentation and proofing periods. Cakes, on the other hand, are high in both fat and sugar. The baker's job is to create a structure that supports these ingredients and yet keeps it as light and delicate as possible. Fortunately, producing cakes in quantity is relatively easy—if the baker follows good, well-balanced formulas, scales ingredients accurately, and understands basic mixing methods well.

Cakes owe their popularity not only to their richness and sweetness but also to their versatility. They can be presented in many forms, from simple sheet cakes in cafeterias to elaborately decorated works of art for weddings and other important occasions. With only a few basic formulas and a variety of icings and fillings, the chef or baker can construct the perfect dessert for any occasion or purpose.

In this chapter, we focus on the procedures for mixing and baking the basic types of cakes. In Chapters 17 and 18, we discuss how to assemble and decorate many kinds of desserts, using baked cake layers and sheets in combination with icings, fillings, and other ingredients.

MIXING

THE SELECTION OF high-quality ingredients is, of course, necessary to produce a high-quality cake. However, good ingredients alone do not guarantee a fine cake. A thorough understanding of mixing procedures is essential. Slight errors in mixing can result in cakes with poor texture and volume.

The mixing methods presented in this chapter are the basic ones used for most types of cakes prepared in the modern bakeshop. Each of these methods is used for particular types of formulas, as listed here:

- High-fat or Shortened Cakes
 - Creaming method
 - Two-stage method
 - One-stage (liquid shortening) method
 - Flour-batter method
- Low-fat or Foam-type Cakes
 - Sponge method
 - Angel food method
 - Chiffon method

We discuss these methods and their variations in detail beginning on page 380.

The three main goals of mixing cake batters are:

- To combine all ingredients into a smooth, uniform batter.
- To form and incorporate air cells in the batter.
- To develop the proper texture in the finished product.

These three goals are closely related. They may seem fairly obvious, especially the first one. But understanding each of the goals in detail will help you avoid many errors in mixing. For example, inexperienced bakers often grow impatient and turn the mixer to high speed when creaming fat and sugar, thinking high speed will do the same job faster. But air cells do not form as well at high speed, so the texture of the cake suffers.

Let's examine these three goals one at a time.

Combining Ingredients into a Homogeneous Mixture

Two of the major ingredients in cakes—fat and water (including the water in milk and eggs)—are, by nature, unmixable. Therefore, careful attention to mixing procedures is important to reach this goal.

As you recall from Chapter 4 (p. 69), a uniform mixture of two unmixable substances is called an *emulsion*. Part of the purpose of mixing is to form such an emulsion. Properly mixed cake batters contain a water-in-fat emulsion; that is, the water is held in tiny droplets

surrounded by fat and other ingredients. Curdling occurs when the fat can no longer hold the water in emulsion. The mixture then changes to a fat-in-water mixture, with small particles of fat surrounded by water and other ingredients.

The following factors can cause curdling:

1. **Using the wrong type of fat.** Different fats have different emulsifying abilities. High-ratio shortening contains emulsifiers that enable it to hold a large amount of water without curdling. You should not substitute regular shortening or butter in a formula that calls specifically for high-ratio, or emulsified, shortening.

Butter has a desirable flavor but relatively poor emulsifying ability. Butter is, of course, used in many cake batters, but the formula should be specifically balanced so it contains no more liquid than the batter can hold. Also, remember that butter contains some water.

Egg yolks, as you will recall, contain a natural emulsifier. When whole eggs or yolks are properly mixed into a batter, they help the batter hold the other liquids.

2. **Having the ingredients too cold.** Emulsions are best formed when the temperature of the ingredients is about 70°F (21°C).
3. **Mixing the first stage of the procedure too quickly.** If you do not cream the fat and sugar properly, for example, you will not form a good cell structure to hold the water (see “Forming Air Cells,” below).
4. **Adding the liquids too quickly.** In most cases the liquids, including the eggs, must be added in stages—that is, a little at a time. If they are added too quickly, they cannot be absorbed properly.
In batters made by the creaming method (p. 381), the liquid is often added alternately with the flour. The flour helps the batter absorb the liquid.
5. **Adding too much liquid.** This is not a problem if the formula is a good one. However, if you are using a formula that is not properly balanced, it might call for more liquid than the fat can hold in emulsion.

Forming Air Cells

Air cells in cake batters are important for texture and leavening. A fine, smooth texture is the result of small, uniform air cells. Large or irregular air cells result in a coarse texture. And recall that air trapped in a mix helps leaven a cake when the heat of the oven causes the air to expand (p. 96). When no chemical leavener is used, this trapped air, in addition to steam, provides nearly all the leavening. Even when baking powder or soda is used, the air cells provide places to hold the gases released by the chemical leavener.

Correct ingredient temperature and mixing speed are necessary for good air cell formation. Cold fat (below 60°F/16°C) is too hard to form good air cells, and fat that is too warm (above 75°F/24°C) is too soft. Mixing speed should be moderate (medium speed). If mixing is done on high speed, friction warms the ingredients too much. Not as many air cells are formed, and those that do form tend to be coarse and irregular.

Granulated sugar is the proper sugar for creaming-method cakes. Confectioners’ sugar is too fine to produce good air cells.

In the case of egg-foam cakes (sponge, angel food, chiffon), the air cells are formed by whipping eggs and sugar. For the best foaming, the egg and sugar mixture should be slightly warm (about 100°F/38°C). Whipping may be done at high speed at first, but the final stages of whipping should be at medium speed in order to retain air cells.

Developing Texture

Both the uniform mixing of ingredients and the formation of air cells are important to a cake’s texture, as we discussed in the preceding sections. Another factor of mixing that affects texture is gluten development. For the most part, we want very little gluten development in cakes, so we use cake flour, which is low in gluten. Some sponge cake formulas call for cornstarch to replace part of the flour, so there is even less gluten (the high percentage of eggs in sponge cakes provides much of the structure). In contrast, some pound cake and fruit cake formulas need more gluten than other cakes for extra structure and to support the weight of the fruit. Thus, you will sometimes see such cake formulas calling for part cake flour and part bread flour.

Recall from Chapter 5 that the amount of mixing affects gluten development. In the creaming method, the sponge method, and the angel food method, the flour is added at or near the end of the mixing procedure so there is very little gluten development in properly mixed batters. If the batter is mixed too long after the flour is added, or if it becomes too warm during mixing, the cakes are likely to be tough.

In the two-stage method, the flour is added in the first step. However, it is mixed with high-ratio shortening, which spreads well and coats the particles of flour with fat. This coating action limits gluten development. It is important to mix the flour and fat thoroughly for the best results. Observe all mixing times closely. Also, keep in mind that high-ratio cakes contain a high percentage of sugar, which is also a tenderizer.

High-Fat Cakes

Creaming Method

The *creaming method*, also called the *conventional method*, was for a long time the standard method for mixing *high-fat cakes*. The development of emulsified, or high-ratio, shortenings led to the development of simpler mixing methods for shortened cakes containing greater amounts of sugar and liquid. The creaming method is still used for many types of butter cakes, however.

The fat specified in creaming-method formulas in this book is butter. Butter cakes are highly prized for their flavor; shortening adds no flavor to cakes. Butter also influences texture because it melts in the mouth, whereas shortening does not.

Nevertheless, many bakers may prefer to substitute shortening for all or part of the butter in these formulas. Shortening has the advantages of being less expensive and easier to mix. In creaming recipes, use regular shortening, not emulsified shortening. Regular shortening has better creaming abilities.

It is usually a good idea *not* to substitute an equal weight of shortening for butter. Remember that butter is only 80% fat, so you will need less shortening. Also, butter contains about 15% water, so you should adjust the quantity of milk or water. The Procedure for Substituting Butter and Shortening in Creaming-Method Batters (p. 382) explains how to adjust formulas for these substitutions.

Two-Stage Method

The *two-stage method* was developed for use with high-ratio plastic shortenings. High-ratio cakes contain a large percentage of sugar, more than 100% based on the weight of the flour. Also, they are made with more liquid than creaming-method cakes, and the batter pours more freely. The two-stage mixing method is a little simpler than the creaming method, and it produces a smooth batter that bakes up into a fine-grained, moist cake. It gets its name because the liquids are added in two stages.

The first step in making high-ratio cakes is to blend the flour and other dry ingredients with shortening. When this mixture is smooth, the liquids (including eggs) are added in stages. Throughout this procedure, it is important to follow two rules:

- Mix at low speed and observe correct mixing times. This is important to develop proper texture.
- Stop the machine and scrape down the sides of the bowl frequently during mixing. This is important to develop a smooth, well-mixed batter.

Note the variation following the basic procedure. Many bakers prefer this variation. It is somewhat simpler because it combines steps 2 and 3.

The two-stage method can sometimes be adapted to butter cakes, especially those high in fat. As an experiment, try making a butter cake formula with the creaming method and the two-stage method and comparing the texture of the finished cakes.

PROCEDURE: Creaming Method

1. Scale ingredients accurately. Have all ingredients at room temperature (70°F/21°C).
2. Place the butter or shortening in the mixing bowl. With the paddle attachment, beat the fat slowly, until it is smooth and creamy.
3. Add the sugar; cream the mixture at moderate speed until the mixture is light and fluffy (a). This will take about 8 to 10 minutes.



Some bakers prefer to add the salt and flavorings with the sugar to ensure uniform distribution.

If melted chocolate is used, it may be added during creaming.

4. Add the eggs a little at a time (b). After each addition, beat until the eggs are absorbed before adding more. After the eggs are beaten in, mix until light and fluffy. This step will take about 5 minutes.



5. Scrape down the sides of the bowl to ensure even mixing.

6. Add the sifted dry ingredients (including the spices, if they were not added in step 3), alternating with the liquids. This is done as follows:

Add one-fourth of the dry ingredients (c). Mix just until blended in.

Add one-third of the liquid (d). Mix just until blended in.

Repeat until all ingredients are used. Scrape down the sides of the bowl occasionally for even mixing.

The reason for adding dry and liquid ingredients alternately is the batter may not absorb all the liquid unless some of the flour is present.



VARIATION

A few creaming-method cakes require an extra step: Egg whites whipped to a foam with sugar are folded into the batter to provide additional leavening.

PROCEDURE: Substituting Butter and Shortening in Creaming-Method Batters

TO SUBSTITUTE REGULAR SHORTENING FOR ALL OR PART OF THE BUTTER:

1. Multiply the weight of the butter to be eliminated by 0.8. This gives the weight of regular shortening to use.
2. Multiply the weight of the eliminated butter by 0.15. This gives the weight of additional water or milk needed.

Example: A formula calls for 3 lb butter and 3 lb milk. Adjust it so you use 1 lb (16 oz) butter. How much shortening and milk will you need?

$$\begin{aligned} \text{Weight of butter to be} \\ \text{eliminated} &= 2 \text{ lb} \\ &= 32 \text{ oz} \\ 0.8 \times 32 \text{ oz} &= 26 \text{ oz shortening} \\ &\quad \text{(rounded off)} \\ 0.15 \times 32 \text{ oz} &= 5 \text{ oz extra milk} \\ &\quad \text{(rounded off)} \\ \text{Total milk} &= 3 \text{ lb } 5 \text{ oz} \end{aligned}$$

TO SUBSTITUTE BUTTER FOR ALL OR PART OF THE REGULAR SHORTENING:

1. Multiply the weight of the shortening to be eliminated by 1.25. This gives the weight of the butter to use.
2. Multiply the weight of the butter by 0.15. This gives the weight of water or milk to be subtracted from the formula.

Example: A formula calls for 3 lb regular shortening and 3 lb milk. Adjust it so you use 1 lb (16 oz) shortening. How much butter and milk will you need?

$$\begin{aligned} \text{Weight of shortening} \\ \text{to be eliminated} &= 2 \text{ lb} \\ &= 32 \text{ oz} \\ 1.25 \times 32 \text{ oz} &= 40 \text{ oz butter} \\ 0.15 \times 40 \text{ oz} &= 6 \text{ oz milk to be subtracted} \\ &\quad \text{from the formula} \\ \text{Total milk} &= 2 \text{ lb } 10 \text{ oz} \end{aligned}$$

PROCEDURE: Two-Stage Method

1. Scale the ingredients accurately. Have all ingredients at room temperature.
2. Sift the flour, baking powder, soda, and salt into the mixing bowl and add the shortening. With the paddle attachment, mix at low speed for 2 minutes. Stop the machine, scrape down the bowl and beater, and mix again for 2 minutes.

If melted chocolate is used, blend it in during this step.

If cocoa is used, sift it with the flour in this step or with the sugar in step 3.

3. Sift the remaining dry ingredients into the bowl and add part of the water or milk. Blend at low speed for 3 to 5 minutes. Stop the machine and scrape down the sides of the bowl and the beater several times to ensure even mixing.

4. Combine the remaining liquids and lightly beaten eggs. With the mixer running, add this mixture to the batter in 3 parts. After each part, turn off the machine and scrape down the bowl. Continue mixing for a total of 5 minutes in this stage.

The finished batter is normally pourable.

VARIATION

This variation combines steps 2 and 3 above into one step.

1. Scale the ingredients as in the basic method.
2. Sift all dry ingredients into the mixing bowl. Add the shortening and part of the liquid. Mix on low speed for 7 to 8 minutes. Scrape down the sides of the bowl and the beater several times.
3. Continue with step 4 in the basic procedure.

One-Stage (Liquid Shortening) Method

High-ratio liquid shortening, described on page 70, is so effective at emulsifying and at spreading through the batter to tenderize gluten that cake batters made from it can generally be mixed all in one step—thus called the *one-stage method*. Adding the liquid ingredients to the bowl first simplifies the procedure because there is less chance for moistened flour to coat the bottom and sides of the bowl, making scraping down difficult. Mix at low speed until the dry ingredients are moistened, to prevent dry flour from being thrown from the bowl. Then mix for a period at high speed, followed by a period at medium speed, to properly develop air cells and create a smooth, fine-textured batter.

PROCEDURE: One-Stage Method

1. Scale all ingredients accurately. Have all ingredients at room temperature.
2. Combine all liquid ingredients, including high-ratio liquid shortening, in the mixing bowl (a).



3. Sift the dry ingredients together on top of the liquid ingredients in the bowl (b).



4. With the paddle attachment, mix at low speed for 30 seconds (c), until the dry ingredients are moistened. (The purpose of mixing slowly until the dry ingredients are moistened is to keep them from being thrown out of the bowl.)



5. Mix at high speed for 4 minutes. Stop the machine and scrape down the bowl and beater.
6. Mix at medium speed for 3 minutes (d).



Flour-Batter Method

The *flour-batter method* is used for only a few specialty items. It produces a fine-textured cake, but there may be some toughening due to the development of gluten.

Flour-batter cakes include those made with either emulsified shortening or butter or both. There are no formulas in this book requiring this mixing method, although the batter for Old-Fashioned Pound Cake (p. 398) can be mixed this way instead of by the creaming method.

PROCEDURE: Flour-Batter Method

1. Scale all ingredients accurately. Have all ingredients at room temperature.
2. Sift the flour and other dry ingredients except the sugar into the mixing bowl. Add the fat. Blend together until smooth and light.
3. Whip the sugar and eggs together until thick and light. Add liquid flavoring ingredients, such as vanilla.
4. Combine the flour-fat mixture and the sugar-egg mixture and mix until smooth.
5. Gradually add water or milk (if any) and mix smooth.



KEY POINTS TO REVIEW

- What are the steps in the creaming method?
- What are the steps in the two-stage method?
- What are the steps in the one-stage method?

Low-Fat or Egg-Foam Cakes

Most *egg-foam cakes* contain little or no shortening and depend on the air trapped in beaten eggs for most or all of their leavening. Growing interest in fine pastries and cakes has led to new appreciation of the versatility of sponge cakes. Therefore, this chapter includes formulas for a great variety of egg-foam batters. These cakes are used in many of the special desserts assembled in Chapter 18.

Egg-foam cakes have a springy texture and are tougher than shortened cakes. This makes them valuable for many kinds of desserts that require much handling to assemble. Most European cakes and tortes are made with sponge or egg-foam cakes. These cakes are baked either in thin sheets or disks or in thick layers that are then sliced horizontally into thinner layers. The thin sponge layers are then stacked with a variety of fillings, creams, mousses, fruits, and icings. In addition, sponge layers in this kind of cake are usually moistened with a flavored sugar syrup, to compensate for their lack of moisture.

Sponge sheets for jelly rolls and other rolled cakes are often made without any shortening so they do not crack when rolled. Because fat weakens gluten, sponge cakes containing fat may split more easily.

Flour for egg-foam cakes must be weak in order to avoid making the cake tougher than necessary. Cornstarch is sometimes added to cake flour for these cakes to weaken the flour further.

Sponge Methods

The many types of *sponge method* cakes have one characteristic in common: They are made with an egg foam that contains yolks. These are usually whole-egg foams but, in some cases, the base foam is a yolk foam, and an egg white foam is folded in at the end of the procedure.

In its simplest form, sponge cake batter is made in two basic steps: (1) eggs and sugar are whipped to a thick foam, and (2) sifted flour is folded in. Additional ingredients, such as butter or liquid, complicate the procedure slightly. It would be too confusing to try to include all the variations in one procedure, so instead we describe four separate procedures.

Please note the difference between the main procedure and the first variation. There may be some confusion because in North American bakeshops, *genoise* nearly always contains butter. Nevertheless, in classical pâtisserie, *genoise* is often made without butter, and it is

still commonly made in European bakeshops with only eggs, sugar, and flour. Furthermore, the main procedure as given here explains sponge cakes in their simplest and most basic form, and this procedure is the foundation for the variations that follow. If you work in a bakeshop in Canada or the United States, however, you can expect to use the first variation instead of the main procedure to mix basic genoise.

PROCEDURE: Plain Sponge or Genoise Method

1. Scale all ingredients accurately.
2. Combine the eggs, sugar, and salt in a stainless steel bowl. Immediately set the bowl over a hot-water bath and stir or beat with a whip until the mixture warms to a temperature of about 110°F (43°C) (a). The reason for this step is that the foam attains greater volume if warm.



A

3. With a wire whip or the whip attachment of a mixer, beat the eggs at high speed until they are very light and thick (b). This may take as long as 10 to 15 minutes if the quantity is large.



B

4. If any liquid (water, milk, liquid flavoring) is included, add it now. Either whip it in, in a steady stream, or stir it in, as indicated in the recipe.
5. Fold in the sifted flour in 3 or 4 stages, being careful not to deflate the foam. Many bakers do this by hand, even for large batches. Fold gently until all the flour is blended in (c). If any other dry ingredients are used, such as cornstarch or baking powder, sift them first with the flour.



C

6. Immediately pan and bake the batter. Delays will cause loss of volume.

VARIATION: BUTTER SPONGE OR BUTTER GENOISE

1. Follow the plain sponge procedure through step 5.
2. Carefully fold in the melted butter after the flour has been added. Fold in the butter completely, but be careful not to overmix, or the cake will be tough (d).



D

3. Immediately pan and bake.

VARIATION: HOT MILK AND BUTTER SPONGE

1. Scale all ingredients accurately. Heat the milk and butter together until the butter is melted.
2. Whip the eggs into a foam, as in the plain sponge method, steps 2 and 3.
3. Fold in the sifted dry ingredients (flour, leavening, cocoa, etc.), as in the basic procedure.
4. Carefully fold in the hot butter and milk in 3 stages. Fold in completely, but do not overmix.
5. Immediately pan and bake.

VARIATION: SEPARATED-EGG SPONGE

1. Follow the basic plain sponge method, but use yolks for the basic foam (steps 2 and 3). Reserve the egg whites and part of the sugar for a separate step.
2. Whip the egg whites and sugar to firm, moist peaks. Fold into the batter alternately with the sifted dry ingredients. Fold in completely, but do not overmix.
3. Immediately pan and bake.

Angel Food Method

Angel food cakes are based on egg-white foams and contain no fat. (For success in beating egg whites, review the principles of egg white foams in Chapter 12, p. 262.) Egg whites for the *angel food method* should be whipped until they form soft, not stiff, peaks. Overwhipped whites lose their capability to expand and to leaven the cake. This is because the protein network in stiffly beaten whites has already stretched as far as it can. If the whites are whipped to soft peaks instead, they can stretch more during baking, allowing the cake to rise.

PROCEDURE: Angel Food Method

1. Scale ingredients accurately. Have all ingredients at room temperature. The egg whites may be slightly warmed in order to achieve better volume.
2. Sift the flour with half the sugar. This step helps the flour mix more evenly with the foam.
3. Using the whip attachment, beat the egg whites until they form soft peaks. Add salt and cream of tartar near the beginning of the beating process (a).



A

4. Gradually beat in the portion of the sugar that was not mixed with the flour (b). Continue to whip until the egg whites form soft, moist peaks (c). Do not beat until stiff. Beat in the flavorings.



B



C

5. Fold in the flour-sugar mixture just until it is thoroughly absorbed, but no longer (d).



D

6. Deposit the mix in ungreased pans (e) and bake immediately.



E

Chiffon Method

Chiffon cakes and angel food cakes are both based on egg-white foams, but here the similarities in the mixing methods end. In angel food cakes, a dry flour-sugar mixture is folded into the egg whites. In the *chiffon method*, a batter containing flour, egg yolks, vegetable oil, and water is folded into the whites.

Egg whites for chiffon cakes should be whipped until they are a little firmer than those for angel food cakes, but not so much that they become dry. Chiffon cakes contain baking powder, so they do not depend on the egg foam for all their leavening.

PROCEDURE: Chiffon Method

1. Scale all ingredients accurately. Have all ingredients at room temperature. Use a good-quality, flavorless vegetable oil.
2. Sift the dry ingredients, including part of the sugar, into the mixing bowl.
3. Mixing with the paddle attachment at second speed, gradually add the oil (a), then the egg yolks (b), water (c), and liquid flavorings, all in a slow, steady stream. While adding the liquids, stop the machine several times to scrape down the bowl and the beater. Mix until smooth, but do not overmix.



A



B



C

4. Whip the egg whites until they form soft peaks. Add the cream of tartar and sugar in a stream and whip to firm, moist peaks.
5. Fold the whipped egg whites into the flour-liquid mixture (d).



D

6. Immediately deposit the batter in ungreased center-tube pans (like angel food cake pans) or in layer pans with only the bottoms greased and dusted, not the sides (like sponge layers).

Combination Creaming/Sponge Method

Some European-style cakes are begun by using the creaming method. In other words, butter is creamed with sugar until the mixture is light. These cakes usually contain no chemical leavening, however. Instead, whipped egg whites are folded into the batter, as for some sponge cakes. Examples of this kind of cake are Hazelnut Sponge Cake (p. 412) and Baumkuchen (p. 413). Mixing hazelnut sponge is illustrated in the Combination Creaming/Sponge Method procedure below.

PROCEDURE: Combination Creaming/Sponge Method

1. Cream the butter and sugar.



2. Add the egg yolks a little at a time.



3. Mix well after each addition.



4. Whip the egg whites and sugar until they form soft peaks, as for angel food cake.



5. Fold the meringue into the butter mixture.



6. Sift the dry ingredients together.



7. Fold in the sifted dry ingredients.



8. Deposit the batter in prepared pans.



9. Level the top of the batter with a plastic scraper.



Prepared Mixes

Many mixes are available that contain all ingredients except water and, sometimes, eggs. These products also contain emulsifiers to ensure an even blending of ingredients. To use them, follow the package instructions exactly.

Most mixes produce cakes with excellent volume, texture, and tenderness. Whether or not they also taste good is a matter of opinion. On the other hand, cakes made from scratch are not necessarily better. They are better only if they are carefully mixed and baked, are prepared from good, tested formulas, and incorporate high-quality ingredients.



KEY POINTS TO REVIEW

- What are the steps in the plain sponge method?
- What are the steps in the angel food method?
- What are the steps in the chiffon method?
- What are the steps in the combination creaming/sponge method?

CAKE FORMULA BALANCE

IT IS POSSIBLE to change cake formulas, either to improve them or to reduce costs. However, ingredients and quantities can be changed only within certain limits. A cake formula whose ingredients fall within these limits is said to be “in balance.” Knowing the limits helps you not only modify recipes but also judge untested recipes and correct faults.

Keep in mind that new ingredients and procedures are frequently developed. Cake-balancing rules that have worked well until now may be adapted as new developments come along that allow you to break the rules. A baker should be open to new ideas and willing to try them. For example, it was once a rule that the weight of sugar in a mix should not exceed the weight of flour. But the introduction of shortenings with emulsifiers and the development of the two-stage method led to formulas allowing higher proportions of sugar.

Ingredient Functions

For the purpose of balancing cake formulas, we can classify cake ingredients according to four functions: tougheners (or stabilizers), tenderizers, dryers, and moisteners (or moisturizers). The idea of formula balancing is that tougheners should balance tenderizers and dryers should balance moisteners. If, for example, we increase the amount of tougheners in a formula, we must compensate by also increasing the amount of tenderizers.

Many ingredients fill more than one function, sometimes even opposite functions. Egg yolks contain protein, which is a toughener, but they also contain fat, which is a tenderizer. The major cake ingredients act as follows:

Tougheners provide structure: flour, eggs (whites and yolks).

Tenderizers provide softness or shortening of protein fibers: sugar, fats (including butter, shortening, and cocoa butter), chemical leaveners.

Moisteners provide moisture or water: water, liquid milk, syrups and liquid sugars, eggs.

Dryers absorb moisture: flours and starches, cocoa, milk solids.

You can also use this list of ingredients as a troubleshooting guide for cake failures. A cake that fails even if mixed and baked correctly may require formula balancing. For example, if a cake is too dry, you might increase one or more of the moisteners, or decrease the dryers. Doing so, however, takes a certain amount of experience. Remember that most ingredients have more than one function. If you decide to increase the eggs in a dry cake, you may wind up with an even harder, tougher cake. Although whole eggs do provide some moisture, they add even more toughening power because of their strong protein content.

As a further complication, many successful cake formulas apparently break the rules. For example, one rule for creaming-method cakes made with butter or regular shortening says the weight of the sugar should not exceed the weight of the flour. In practice, however, there are successful creaming method recipes calling for more than 100% sugar. Many baking manuals insist on these balancing rules rather strongly. But it may be better to think of them not as iron-clad laws but as guidelines that give you a starting point for judging or correcting recipes.

In summary, it takes an experienced baker to be consistently successful at adjusting cake formulas. However, even as a novice baker you should have some knowledge of formula balancing. It helps you understand the formulas you are using and practicing, and it helps you understand why you assemble and mix cakes in certain ways and what makes the mixtures work.

In the following discussion of balancing rules, it is helpful to think of ingredients in terms of baker's percentages (see p. 23) rather than as specific weights. This eliminates one variable: Flour is a constant 100%, so other ingredients are increased or decreased with respect to flour.

Balancing Fat-Type or Shortened Cakes

A normal starting point in discussing cake balancing is old-fashioned *pound cake*. This cake is made of flour, sugar, butter, and eggs in equal parts. As bakers experimented with this basic recipe over the years, they reduced the quantities of sugar, fat, and eggs, and compensated by adding milk. This is the origin of the modern butter cake.

The general rules for balancing creaming-method cakes made with butter or regular shortening are as follows (all ingredient quantities are, of course, by weight):

- The sugar (a tenderizer) is balanced against the flour (a toughener). In most creaming-method cakes, the weight of sugar is less than or equal to the weight of flour.
- The fat (a tenderizer) is balanced against the eggs (tougheners).
- The eggs and liquids (moisteners) are balanced against the flour (a dryer).

Balancing one ingredient against another, as indicated in the preceding guidelines, means that if one ingredient is increased or decreased, then the balancing ingredients must also be adjusted. For example, if the fat is increased, then the eggs must be increased to keep the formula in balance.

With the development of emulsified shortening, it became possible to increase the quantities of sugar, eggs, and liquids. For example, the weight of sugar in high-ratio cakes is greater than the weight of flour, yet the formula is still in balance. Similarly, the quantity of liquid may be greater because the emulsifiers in the shortening keep the batter stable. Nevertheless, the general principles of balancing, as outlined above, still hold. If one ingredient is increased, other ingredients must be adjusted to compensate.

A common practice in balancing a formula is to decide on the sugar/flour ratio and then balance the rest of the ingredients against these. The following guidelines are helpful in this regard:

- If eggs are increased, increase the shortening.
- If extra milk solids are added as an enrichment, add an equal weight of water.
- If cocoa is added, add water equal in weight to 75 to 100% of the cocoa.
- If cocoa or bitter chocolate is added, increase the amount of sugar to as much as 180% of the weight of the flour in high-ratio cakes, and to over 100% of the weight of the flour in creaming-method cakes. This is to account for the starch content of the cocoa and chocolate.
- In cakes to be baked in very large units, use less liquid because less water will evaporate during baking.
- If a liquid sugar is added (honey, corn syrup, etc.), reduce other liquids slightly.
- If large quantities of moist ingredients, such as applesauce or mashed bananas, are added, reduce the liquid. Extra-large additions of moist ingredients may also require increasing the flour and eggs.
- Use less baking powder with creamed batters than two-stage batters because the creamed batters get more aeration in the creaming stage.

SCALING, PANNING, AND BAKING

Pan Preparation

Prepare pans before mixing cake batters so cakes can be baked without delay as soon as they are mixed.

- For high-fat cakes, layer pans must be greased, preferably with a commercial pan-greasing preparation. If this is not available, dust the greased pans with flour and tap out the excess.

- For sheet cakes, line the pans with greased parchment. For thin layers, such as for Swiss rolls, it is necessary to use level pans without dents or warps. Silicone mats are especially good to use for lining pans for thin layers.
- For angel food cakes and chiffon cakes, do not grease the pan. The batter must be able to cling to the sides so it doesn't sink back into the pan after rising.
- For sponge cake layers with little or no fat, grease the bottoms but not the sides of the pans.

Scaling

For consistency, cake batters should be scaled into prepared pans by weight, as explained in the Procedure for Scaling Cake Batters. This is the most accurate method for all types of cake batters. However, some chefs prefer alternative methods for certain batters because they believe those methods are faster.

Because two-stage and one-stage batters are pourable, some bakers prefer to scale them by volume, as described in the Alternative Procedure for Scaling Two-Stage and One-Stage Batters. This method is quick and also fairly accurate.

Foam batters should be handled as little as possible and baked immediately to avoid deflating the beaten eggs. While these cake batters may be scaled by weight as in the basic procedure, some bakers prefer to eyeball them in order to minimize handling, as described in the Alternative Procedure for Scaling Egg-Foam Cakes.

Creaming method batters are thick, and so do not pour easily. Thus, they should always be weighed, as in the first procedure.

PROCEDURE: Scaling Cake Batters

1. Place a prepared cake pan on the left side of the balance scale. Balance the scale by placing another pan on the right side.
2. Set the scale to the desired weight.
3. Add batter to the left pan until the scale balances.
4. Remove the pan from the scale and spread the batter smooth with a spatula.
5. Repeat with remaining pans.
6. Give the pans several sharp raps on the bench to free large trapped air bubbles. Bake immediately.

ALTERNATIVE PROCEDURE FOR SCALING TWO-STAGE AND ONE-STAGE BATTERS

1. Place an empty volume measure on the left side of the balance scale. Balance the scale to zero.
2. Set the scale to the desired weight.
3. Pour batter into the measure until the scale balances.
4. Note the volume of batter in the measure.
5. Pour the batter into the prepared pan, quickly scraping out the measure to get all the batter.
6. Scale the remaining cakes with the volume measure, using the volume noted in step 4.
7. Give the pans several sharp raps on the bench to free large trapped air bubbles. Bake immediately.

ALTERNATIVE PROCEDURE FOR SCALING EGG-FOAM CAKES

1. Have all prepared pans lined up on the bench.
2. Scale the first pan as for creamed batters.
3. Quickly fill the remaining pans to the same level as the first pan, judging the level by eye.
4. Spread the batter smooth. Bake immediately.
See the Average Cake Scaling Weights, Baking Temperatures, and Times table (p. 392).

AVERAGE CAKE SCALING WEIGHTS, BAKING TEMPERATURES, AND TIMES

Pan Type and Size	Scaling Weight*		Baking Temperature		Approximate Baking Time in Minutes
	U.S.	Metric	U.S.	Metric	
HIGH-FAT CAKES AND CHIFFON CAKES					
Round layers					
6 in. (15 cm)	8–10 oz	230–285 g	375°F	190°C	18
8 in. (20 cm)	14–18 oz	400–510 g	375°F	190°C	25
10 in. (25 cm)	24–28 oz	680–800 g	360°F	180°C	35
12 in. (30 cm)	32–40 oz	900–1100 g	360°F	180°C	35
Sheets and square pans					
18 × 26 in. (46 × 66 cm)	7–8 lb	3.2–3.6 kg	360°F	180°C	35
18 × 13 in. (46 × 33 cm)	3.5–4 lb	1.6–1.8 kg	360°F	180°C	35
9 × 9 in. (23 × 23 cm)	24 oz	680 g	360°F	180°C	30–35
Loaf (pound cake)					
2¼ × 3½ × 8 in. (6 × 9 × 20 cm)	16–18 oz	450–500 g	350°F	175°C	50–60
2¾ × 4½ × 8½ in. (7 × 11 × 22 cm)	24–27 oz	680–765 g	350°F	175°C	55–65
Cupcakes					
per dozen	18 oz	510 g	385°F	195°C	18–20
FOAM-TYPE CAKES					
Round layers					
6 in. (15 cm)	5–6 oz	140–170 g	375°F	190°C	20
8 in. (20 cm)	10 oz	280 g	375°F	190°C	20
10 in. (25 cm)	16 oz	450 g	360°F	180°C	25–30
12 in. (30 cm)	24 oz	700 g	360°F	180°C	25–30
Sheets (for jelly roll or sponge roll)					
18 × 26 in., ½ in. thick (46 × 66 cm, 12 mm thick)	2.5 lb	1.2 kg	375°F	190°C	15–20
18 × 26 in., ¼ in. thick (46 × 66 cm, 6 mm thick)	28 oz	800 g	400°F	200°C	7–10
Tube (angel food and chiffon)					
8 in. (20 cm)	14–18 oz	400–460 g	360°F	180°C	30
10 in. (25 cm)	24–32 oz	700–900 g	350°F	175°C	50
Cupcakes					
per dozen	10 oz	280 g	375°F	190°C	18–20
*The weights given are averages. Weights may be increased by 25% if thicker layers are desired. Baking times may need to be increased slightly.					

Baking and Cooling

Cake structure is fragile, so proper baking conditions are essential to produce high-quality products. Follow these guidelines to help you avoid cake failures.

- Preheat the ovens. To conserve expensive energy, don't preheat longer than necessary.
- Make sure ovens and shelves are level.
- Do not let pans touch each other. If pans touch, air circulation is inhibited and the cakes rise unevenly.
- Bake at the correct temperature:
 - Too hot an oven causes the cake to set unevenly with a humped center, or to set before it has fully risen. Crusts will be too dark.
 - Too slow an oven causes poor volume and texture because the cake doesn't set fast enough and may fall.
- If steam is available in the oven, use it for creamed, two-stage, and one-stage batters. These cakes bake with a flatter top if baked with steam because the steam delays the formation of the top crust. Do not use steam with sponge and angel food cakes.
- Do not open the oven or disturb cakes until they have finished rising and are partially browned. Disturbing the cakes before they are set may cause them to fall.
- Cool angel food and chiffon cakes upside down in their pans, so they won't collapse back into the pans. Because they are baked in ungreased pans, they won't fall out of their pans. When completely cool, they are sturdy enough to be pulled out of the pans without breaking.

Tests for Doneness

- Shortened cakes shrink away slightly from sides of pan.
- Cake is springy. The center of the top of the cake springs back when pressed lightly.
- A cake tester or wooden pick inserted in center of cake comes out clean.

Cooling and Removing from Pans

- Cool layer cakes and sheet cakes 15 minutes in pans and turn out while slightly warm. Because they are fragile, they may break if turned out when hot.
- Turn out layer cakes onto racks to finish cooling.
- To turn out sheet cakes:
 1. Sprinkle the top lightly with granulated sugar.
 2. Set a cake board on top of the cake, and then set an empty sheet pan on top, bottom side down. (If a cake board is not available, just set the upside-down sheet pan on top.)
 3. Invert both pans.
 4. Remove the top pan.
 5. Peel the parchment off the cake.
- Cool angel food cakes and chiffon cakes upside down in pans so they do not fall back into the pans and lose volume. Support the edges of the pan so the top of the cake is off the bench. When cool, loosen the cake from sides of the pan with a knife or spatula and carefully pull out the cake.

Errors in mixing, scaling, baking, and cooling cakes result in many kinds of defects and failures. Many of these, along with their possible causes, are summarized, for easy reference, in the Common Cake Faults and Their Causes table on page 394.

COMMON CAKE FAULTS AND THEIR CAUSES

Fault	Causes
VOLUME AND SHAPE	
Poor volume	Too little flour Too much liquid Too little leavening Oven too hot
Uneven shape	Improper mixing Batter spread unevenly Uneven oven heat Oven racks not level Cake pans warped
CRUST	
Too dark	Too much sugar Oven too hot
Too light	Too little sugar Oven not hot enough
Burst or cracked	Too much flour or flour too strong Too little liquid Improper mixing Oven too hot
Soggy	Underbaked Cooling in pans or with not enough ventilation Wrapping before cool
TEXTURE	
Dense or heavy	Too little leavening Too much liquid Too much sugar Too much shortening Oven not hot enough
Coarse or irregular	Too much leavening Too little egg Improper mixing
Crumbly	Too much leavening Too much shortening Too much sugar Wrong kind of flour Improper mixing
Tough	Flour too strong Too much flour Too little sugar or shortening Overmixing
POOR FLAVOR	
	Poor-quality ingredients Poor storage or sanitation Unbalanced formula



KEY POINTS TO REVIEW

- Which cake ingredients are tenderizers? Tougheners? Moisteners? Dryers?
- In the concept of cake formula balance, what does it mean to balance one ingredient against another?
- How should cake pans be prepared before batter is deposited in them?
- What is the basic procedure for scaling cake batters?

ALTITUDE ADJUSTMENTS

AT HIGH ALTITUDES, atmospheric pressure is much lower than at sea level. This factor must be taken into account in cake baking. Formulas must be adjusted to suit baking conditions more than 2000 or 3000 feet above sea level.

Although general guidelines may be given, the exact adjustments required will vary for different kinds of cakes. Many manufacturers of flour, shortening, and other bakery ingredients supply detailed information and adjusted formulas for any given locality.

In general, these are the adjustments you must make:

Leavening. Leavening gases expand more when air pressure is lower, so you must decrease the amounts of baking powder and baking soda. Also, reduce creaming and foaming procedures so less air is incorporated.

Tougheners: Flour and Eggs. Cakes require firmer structure at high altitudes, so increase both eggs and flour to supply adequate proteins for structure.

Tenderizers: Shortening and Sugar. For the same reason, you must decrease shortening and sugar so that the structure will be firmer.

Liquids. At higher altitudes, water boils at a lower temperature and evaporates more easily. Therefore, increase liquids to prevent excess drying, both during and after baking. This also helps compensate for the decrease in moisturizers (sugar and fat) and the increase in flour, which absorbs moisture.

Baking Temperatures. Increase baking temperatures by about 25°F (14°C) above 3500 feet.

Pan Greasing. High-fat cakes tend to stick at high altitudes. Grease pans more heavily. Remove baked cakes from pans as soon as possible.

Storing. To prevent drying, wrap or ice cakes as soon as they are cool.

APPROXIMATE FORMULA ADJUSTMENT IN SHORTENED CAKES AT HIGH ALTITUDE				
INGREDIENT	INCREASE OR DECREASE	2500 FT (750 M)	5000 FT (1500 M)	7500 FT (2280 M)
Baking powder	decrease	20%	40%	60%
Flour	increase	—	4%	9%
Eggs	increase	2.5%	9%	15%
Sugar	decrease	3%	6%	9%
Fat	decrease	—	—	9%
Liquid	increase	9%	15%	22%

To make adjustments, multiply the percentage indicated by the amount of the ingredient and then add or subtract the result, as indicated.

Example: Adjust 1 lb (16 oz) eggs for 7500 ft:

$$0.15 \times 16 \text{ oz} = 2.4 \text{ oz}$$

$$16 \text{ oz} + 2.4 \text{ oz} = 18.4 \text{ oz}$$


KEY POINTS TO REVIEW

- How are cakes tested for doneness?
- How are cakes removed from their baking pans?
- What adjustments must be made to cake formulas that are to be baked at high altitudes?

FORMULAS

THE FOLLOWING CAKE formulas will give you practice with all major cake-mixing methods. Many popular North American cake types are included, sometimes in the form of variations on the basic cake types. These variations show that by making small changes in flavoring ingredients, you can make many different cakes from the same basic recipe. Adding new flavorings sometimes requires other ingredient changes. For example, in the case of the Strawberry Cake (p. 402), the flavoring ingredient is high in sugar, so the amount of sugar in the formula is reduced.

Of course, many more variations are possible than we have room to include here. As one example, we give a separate recipe for spice cake (made with brown sugar), but other spice cakes can be made by adding a similar spice mixture to a basic yellow cake.

The difference between chocolate cake and devil's food cake is in the amount of baking soda used. As we explained in Chapter 4, an excess of soda produces a reddish color in chocolate. By reducing the amount of soda (and increasing the baking powder to make up the lost leavening power), a devil's food cake can be turned into a regular chocolate cake. Of course, both types of cake can be made with either cocoa powder or chocolate. See page 89 for instructions on substituting one type of cocoa product for another.

Note: We have already discussed the mixing procedures in detail, so we do not repeat them here for each formula. If necessary, review pages 381–388 before beginning production.

YELLOW BUTTER CAKE

For large-quantity measurements, see page 733.

Ingredients	U.S.	Metric	%	PROCEDURE
Butter	12 oz	360 g	80	MIXING Creaming method (p. 381)
Sugar	13 oz	390 g	87	
Salt	0.12 oz (2/3 tsp)	4 g	0.75	SCALING AND BAKING See table on page 392.
Eggs	7.5 oz	225 g	50	
Cake flour	15 oz	450 g	100	
Baking powder	0.62 oz (3 3/4 tsp)	18 g	4	
Milk	15 oz	450 g	100	
Vanilla extract	0.2 oz	8 g	1.5	
Total weight:	3 lb 15 oz	1905 g	423 %	

VARIATIONS

UPSIDE-DOWN CAKE

Increase the eggs to 55% (8.25 oz/245 g). Decrease milk to 60% (9 oz/275 g). Add 0.75% (0.12 oz/4 g) lemon or orange flavor. Butter a sheet pan, spread with pan spread (at right), and arrange the desired fruit (pineapple rings, sliced peaches, etc.) on top of the pan spread. Scale the batter as indicated in the table on page 392. Bake at 360°F (180°C). Immediately after baking, turn out of the pan (see p. 393). Glaze with Clear Glaze (p. 197) or Apricot Glaze (p. 198).

WALNUT CAKE

Add 50% (7.5 oz/225 g) chopped walnuts to the batter. Bake in small loaf pans. If desired, ice with chocolate buttercream.

PAN SPREAD

For large-quantity measurements, see page 733.

(for 9-in./23 cm square pan)

Ingredients	U.S.	Metric
Brown sugar	4 oz	112 g
Granulated sugar	1.5 oz	42 g
Corn syrup or honey	1 oz	30 g
Water (as needed)		

Cream together the first three ingredients. Add enough water to thin to spreading consistency.

CHOCOLATE BUTTER CAKE

For large-quantity measurements, see page 734.

Ingredients	U.S.	Metric	%	PROCEDURE
Butter	9 oz	280 g	75	MIXING Creaming method (p. 381) Blend in the melted chocolate after the fat and sugar are well creamed.
Sugar	15 oz	470 g	125	
Salt	0.2 oz (1 tsp)	6 g	1.5	
Unsweetened chocolate, melted	6 oz	188 g	50	
Eggs	8 oz	250 g	67	SCALING AND BAKING See table on page 392.
Cake flour	12 oz	250 g	100	
Baking powder	0.5 oz	15 g	4	
Milk	14 oz	439 g	115	
Vanilla extract	0.25 oz	8 g	2	
Total weight:	4 lb	2022 g	539 %	

BROWN SUGAR SPICE CAKE

Ingredients	U.S.	Metric	%	PROCEDURE	
Butter	12 oz	400 g	80	MIXING Creaming method (p. 381)	
Brown sugar	15 oz	500 g	100		
Salt	0.25 oz	8 g	1.5		
Eggs	9 oz	300 g	60	SCALING AND BAKING See table on page 392.	
Cake flour	15 oz	500 g	100		
Baking powder	0.5 oz	15 g	3		
Baking soda	0.05 oz (¼ tsp)	1.5 g	0.3		
Cinnamon	0.08 oz (1¼ tsp)	2.5 g	0.5		
Cloves, ground	0.05 oz (¾ tsp)	1.5 g	0.3		
Nutmeg	0.03 oz (⅜ tsp)	1 g	0.2		
Milk	15 oz	500 g	100		
Total weight:	4 lb 2 oz	2229 g	445 %		

VARIATIONS

CARROT NUT CAKE

Reduce the milk to 90% (13.5 oz/450 g). Add 40% (6 oz/200 g) grated fresh carrots, 20% (3 oz/100 g) finely chopped walnuts, and 1 tsp (3 g) grated orange zest. Omit the cloves.

BANANA CAKE

Omit the cinnamon and cloves. Reduce the milk to 30% (4.5 oz/150 g). Add 125% (1 lb 3 oz/625 g) ripe, puréed bananas. If desired, add 40% (6 oz/200 g) finely chopped pecans.

APPLESAUCE CAKE

Reduce the milk to 50% (7.5 oz/250 g) and add 90% (13.5 oz/450 g) applesauce. Reduce the baking powder to 2% (0.3 oz or 2 tsp/10 g). Increase the baking soda to 1% (0.15 oz or 1 tsp/5 g).

OLD-FASHIONED POUND CAKE

Ingredients	U.S.	Metric	%	PROCEDURE
Butter or part butter and part shortening	1 lb	500 g	100	MIXING Creaming method (p. 381) After about half the eggs have been creamed in, add a little of the flour to avoid curdling.
Sugar	1 lb	500 g	100	
Vanilla extract	0.33 oz (2 tsp)	10 g	2	
Eggs	1 lb	500 g	100	SCALING AND BAKING See table on page 392. Paper-lined loaf pans are often used for pound cakes.
Cake flour	1 lb	500 g	100	
Total weight:	4 lb	2010 g	402%	

VARIATIONS

Mace or grated lemon or orange zest may be used to flavor pound cake.

RAISIN POUND CAKE

Add 25% (4 oz/125 g) raisins or currants that have been soaked in boiling water and drained well.

CHOCOLATE POUND CAKE

Sift 25% (4 oz/125 g) cocoa and 0.8% (0.12 oz or ¾ tsp/4 g) baking soda with the flour. Add 25% (4 oz/125 g) water to the batter.

MARBLE POUND CAKE

Fill loaf pans with alternating layers of regular and chocolate pound cake batters. Swirl a knife through the batter to marble the mixture.



SHEET CAKE FOR PETITS FOURS AND FANCY PASTRIES

Increase eggs to 112% (1 lb 2 oz/560 g). Bake on sheet pans lined with greased paper. Scale 4 lb (1800 g) for ¼-in. (6-mm) layers to make three-layer petits fours.

Increase the recipe and scale 6 lb (2700 g) for ⅜-in. (9-mm) layers to make two-layer petits fours.

FRUIT CAKE

Use 50% cake flour and 50% bread flour in the basic recipe. Add 250–750% (2.5–7.5 lb/1.25–3.75 kg) mixed fruits and nuts to the batter. Procedure and suggested fruit mixtures follow.

PROCEDURE

1. Prepare fruits and nuts:
 Rinse and drain glazed fruits to remove excess syrup.
 Cut large fruits (such as whole dates) into smaller pieces.
 Mix all fruits and soak overnight in brandy, rum, or sherry.
 Drain well. (Reserve drained liquor for later batches or other purposes.)
2. Mix batter as in basic procedure, using 80% of the flour. If spices are used, cream them with the butter and sugar.
3. Toss the fruits and nuts with the remaining flour. Fold them into the batter.
4. Baking: Use loaf, ring, or tube pans, preferably with paper liners. Bake at 350°F (175°C) for small cakes (1–1½ lb/450–700 g), and 300°F (150°C) for large cakes (4–5 lb/1.8–2.3 kg). Baking time ranges from about 1½ hours for small cakes to 3–4 hours or more for large cakes.
5. Cool. Glaze with Clear Glaze (p. 197), decorate with fruits and nuts, if desired, and glaze again.

MORE VARIATIONS

Percentages in the following fruit mixes are based on the flour in the basic pound cake recipe.

FRUIT MIX I (DARK)

Ingredients	U.S.	Metric	%
Dark raisins	1 lb	500 g	100
Light raisins	1 lb	500 g	100
Currants	8 oz	250 g	50
Dates	1 lb	500 g	100
Figs	8 oz	250 g	50
Glacé cherries	6.5 oz	200 g	40
Nuts (pecans, walnuts, filberts, Brazil nuts)	9.5 oz	300 g	60
<i>Spices</i>			
Cinnamon	0.08 oz (1¼ tsp)	2 g	0.5
Cloves, ground	0.04 oz (½ tsp)	1.25 g	0.25
Nutmeg	0.04 oz (½ tsp)	1.25 g	0.25
Total weight:	5 lb	2500 g	700 %

FRUIT MIX II (LIGHT)

Ingredients	U.S.	Metric	%
Golden raisins	12 oz	375 g	75
Currants	8 oz	250 g	50
Mixed glacé fruit	8 oz	250 g	50
Glacé pineapple	3 oz	100 g	20
Glacé orange peel	2.5 oz	75 g	15
Glacé lemon peel	2.5 oz	75 g	15
Glacé cherries	5 oz	150 g	30
Blanched almonds	4 oz	125 g	25
<i>Spices</i>			
Lemon zest, grated	0.06 oz (¾ tsp)	2 g	0.4
Total weight:	2 lb 13 oz	1400 g	280 %

ALMOND CAKE FOR PETITS FOURS

Ingredients	U.S.	Metric	%	PROCEDURE
Almond paste	3 lb 6 oz	1500 g	300	MIXING Creaming method (p. 381) To soften the almond paste, blend it with a little of the egg until smooth before adding the sugar. Proceed as for mixing pound cake.
Sugar	2 lb 8 oz	1150 g	225	
Butter	2 lb 8 oz	1150 g	225	
Eggs	3 lb 2 oz	1400 g	275	SCALING AND BAKING 4 lb 3 oz (1900 g) per sheet pan. One recipe is enough for 3 pans. Make sure pans are level and without dents. Spread batter very smooth. BAKING 400°F (200°C) See page 480 for makeup of petits fours.
Cake flour	12 oz	340 g	67	
Bread flour	6 oz	170 g	33	
Total weight:	12 lb 10 oz	5710 g	1125%	

SACHER MIX I

Ingredients	U.S.	Metric	%	PROCEDURE
Butter	10 oz	250 g	100	
Sugar	10 oz	250 g	100	
Sweet chocolate, melted	12.5 oz	312 g	125	
Egg yolks	10 oz	250 g	100	
Vanilla extract	0.33 oz (2 tsp)	8 g	3.3	
Egg whites	15 oz	375 g	150	
Salt	0.08 oz (½ tsp)	2 g	0.8	
Sugar	7.5 oz	188 g	75	
Cake flour, sifted	10 oz	250 g	100	
Total weight:	4 lb 11 oz	1885 g	750 %	
<p>Note: See page 461 for icing and decorating a Sachertorte. Layers may be iced and decorated like any other chocolate cake, but then the cake should not be called Sachertorte (see the Sachertorte sidebar).</p>				

SACHER MIX II

For large-quantity measurements, see page 734.

Ingredients	U.S.	Metric	%	PROCEDURE
Butter, softened	4.5 oz	135 g	337	
Fine granulated sugar	3.67 oz	110 g	275	
Egg yolks	4 oz	120 g	300	
Egg whites	6 oz	180 g	450	
Fine granulated sugar	2 oz	60 g	150	
Cake flour	1.33 oz	40 g	100	
Cocoa powder	1.33 oz	40 g	100	
Powdered almonds, toasted	1.75 oz	55 g	137	
Total weight:	1 lb 8 oz	740 g	1849%	
<p>Note: See page 461 for icing and decorating Sachertorte. Layers may be iced and decorated like other kinds of chocolate cake, but then the cake should not be called Sachertorte (see the Sachertorte sidebar).</p>				

SACHERTORTE

The classic chocolate cake Sachertorte originated at the Hotel Sacher, an elegant hotel built in 1876, directly across the street from the Vienna Opera House. The cake became so popular that many bakers tried to imitate it, even though the hotel kept the original formula a secret. As a result, there are many recipes claiming to be authentic. Of course, the original is still available on the menu at the Hotel Sacher.

Austrians serve the cake with a generous portion of unsweetened whipped cream (“mit Schlag,” in the Austrian dialect) because the texture of the cake is somewhat dry.

RED VELVET CAKE

Ingredients	U.S.	Metric	%
Butter	10 oz	300 g	50
Sugar	1 lb 4 oz	600 g	100
Salt	0.22 oz	6 g	1
Red food color (liquid) (see Note)	0.66 oz	20 g	3.2
Eggs	6.67 oz	200 g	33
Cake flour	1 lb 4 oz	600 g	100
Cocoa	1.2 oz	36 g	6
Baking powder	0.4 oz	12 g	2
Baking soda	0.4 oz	12 g	2
Buttermilk	1 lb 4 oz	600 g	100
Distilled vinegar	1 oz	30 g	5
Total weight:	5 lb	2416 g	402 %

PROCEDURE

MIXING

Creaming method (p. 381)

Add the color after the butter and sugar have been creamed together.

SCALING AND BAKING

See table on page 392.

Note: Beet juice can be used in place of food coloring, although quantity may have to be adjusted to get the desired effect.



WHITE CAKE

For large-quantity measurements, see page 734.

Ingredients	U.S.	Metric	%	PROCEDURE
Cake flour	12 oz	375 g	100	MIXING Two-stage method (p. 382) SCALING AND BAKING See table on page 392.
Baking powder	0.75 oz	22 g	6.25	
Salt	0.25 oz	8 g	2	
Emulsified shortening	6 oz	188 g	50	
Sugar	15 oz	470 g	125	
Skim milk	6 oz	188 g	50	
Vanilla extract	0.18 oz (1 $\frac{1}{8}$ tsp)	5 g	1.5	
Almond extract	0.09 oz ($\frac{1}{2}$ tsp)	2 g	0.75	
Skim milk	6 oz	188 g	50	
Egg whites	8 oz	250 g	67	
Total weight:	3 lb 6 oz	1696 g	452 %	

VARIATIONS

Use water instead of milk and add 10% (0.62 oz/18 g) nonfat dry milk to the dry ingredients.

Flavor with lemon extract or emulsion instead of vanilla and almond.

YELLOW CAKE

Make the following ingredient adjustments:

Reduce shortening to 45% (5.5 oz/168 g).

Substitute whole eggs for egg whites, using the same total weight (67%).

Use 2% (0.25 oz/8 g) vanilla and omit the almond extract.

STRAWBERRY CAKE

Make the following ingredient adjustments:

Reduce the sugar to 100% (12 oz/375 g).

Reduce the milk in each stage to 33% (4 oz/125 g).

Thaw and purée 67% (8 oz/250 g) frozen, sweetened strawberries. Mix into the batter.

CHERRY CAKE

Make the following ingredient adjustments:

Reduce the milk in each stage to 40% (4.75 oz/150 g).

Add 30% (3.5 oz/112 g) ground maraschino cherries, with juice, to the batter.

DEVIL'S FOOD CAKE

For large-quantity measurements, see page 734.

Ingredients	U.S.	Metric	%	PROCEDURE
Cake flour	12 oz	375 g	100	<p>MIXING</p> <p>Two-stage method (p. 382)</p> <p>SCALING AND BAKING</p> <p>See table on page 392.</p>
Cocoa	2 oz	60 g	17	
Salt	0.25 oz	8 g	2	
Baking powder	0.375 oz	12 g	3	
Baking soda	0.25 oz	8 g	2	
Emulsified shortening	7 oz	220 g	58	
Sugar	1 lb	500 g	133	
Skim milk	8 oz	250 g	67	
Vanilla extract	0.18 oz (1 tsp)	5 g	1.5	
Skim milk	6 oz	188 g	50	
Eggs	8 oz	250 g	67	
Total weight:	3 lb 12 oz	1876 g	500 %	

HIGH-RATIO POUND CAKE

Ingredients	U.S.	Metric	%	PROCEDURE	
Flour	1 lb 2 oz	500 g	100	<p>MIXING</p> <p>Two-stage method (p. 382)</p> <p>SCALING AND BAKING</p> <p>See table on page 392.</p> <p style="text-align: center;">VARIATIONS</p> <p>See variations following Old-Fashioned Pound Cake, page 398.</p>	
Salt	0.25 oz	8 g	2		
Baking powder	0.25 oz	8 g	2		
Emulsified shortening	12 oz	335 g	67		
Sugar	1 lb 5 oz	585 g	117		
Nonfat milk solids	1 oz	30 g	6		
Water	8 oz	225 g	45		
Eggs	12 oz	335 g	67		
Total weight:	4 lb 8 oz	2026 g	406%		

YELLOW CAKE (LIQUID SHORTENING)

Ingredient	U.S.	Metric	%	PROCEDURE MIXING One-stage method (p. 383) SCALING AND BAKING See table on page 392.
Whole eggs	1 lb 8 oz	675 g	150	
Milk	8 oz	225 g	50	
High-ratio liquid shortening	10 oz	280 g	62.5	
Vanilla extract	1 oz	30 g	6.25	
Sugar	1 lb 4 oz	560 g	125	
Cake flour	1 lb	450 g	100	
Baking powder	1 oz	30 g	6.25	
Salt	0.5 oz	15 g	3	
Total weight:	5 lb	2265 g	493 %	

VARIATIONS

WHITE CAKE (LIQUID SHORTENING)

Reduce the whole eggs to 12.5% (2 oz/60 g) and add 137.5% (1 lb 6 oz/615 g) egg whites. If desired, add 3% (½ oz /15 g) almond extract.

CHOCOLATE CAKE (LIQUID SHORTENING)

In baker's percentages, substitute natural (not Dutched) cocoa powder for part of the flour, so the flour and cocoa together total 100%, as indicated in the following ingredient list. In addition, increase milk and sugar, decrease baking powder, and add baking soda, as indicated. Mix and bake as in the basic formula.

Ingredients	U.S.	Metric	%
Whole eggs	1 lb 8 oz	675 g	150
Milk	10 oz	280 g	62.5
High-ratio liquid shortening	10 oz	280 g	62.5
Vanilla extract	1 oz	30 g	6.25
Sugar	1 lb 6 oz	515 g	137.5
Cake flour	13 oz	365 g	81.25
Natural cocoa powder	3 oz	85 g	18.75
Baking powder	0.5 oz	15 g	3
Baking soda	0.25 oz	7 g	1.5
Salt	0.5 oz	15 g	3

YELLOW CHIFFON CAKE

Ingredients	U.S.	Metric	%	PROCEDURE MIXING Chiffon method (p. 387) SCALING AND BAKING See table on page 392. For layers, use the weights for high-fat cakes.
Cake flour	10 oz	250 g	100	
Sugar	8 oz	200 g	80	
Salt	0.25 oz	6 g	2.5	
Baking powder	0.5 oz	12 g	5	
Vegetable oil	5 oz	125 g	50	
Egg yolks	5 oz	125 g	50	
Water	7.5 oz	188 g	75	
Vanilla extract	0.25 oz	6 g	2.5	
Egg whites	10 oz	250 g	100	
Sugar	5 oz	125 g	50	
Cream of tartar	0.05 oz (5/8 tsp)	1 g	0.5	
Total weight:	3 lb 3 oz	1288 g	515 %	

VARIATIONS

CHOCOLATE CHIFFON CAKE

Make the following ingredient adjustments:

Add 20% (2 oz/50 g) cocoa. Sift it with the flour.

Increase egg yolks to 60% (6 oz/150 g).

Increase the water to 90% (9 oz/225 g).

ORANGE CHIFFON CAKE

Make the following ingredient adjustments:

Increase the egg yolks to 60% (6 oz/150 g).

Use 50% (5 oz/125 g) orange juice and 25% (2.5 oz/62 g) water.

Add 0.5 oz (1 tbsp/6 g) grated orange zest when adding the oil.

GENOISE

Ingredients	U.S.	Metric	%	PROCEDURE
Eggs	1 lb 2 oz	562 g	150	MIXING Genoise or butter genoise method (p. 385)
Sugar	12 oz	375 g	100	
Cake flour	12 oz	375 g	100	
Butter (optional; see p. 384)	4 oz	125 g	33	
Vanilla extract or lemon flavor	0.25 oz	8 g	2	
Total weight:	2 lb 14 oz	1445 g	385%	SCALING AND BAKING See table on page 392.

VARIATIONS

CHOCOLATE GENOISE

Substitute 2 oz (60 g) cocoa powder for 2 oz (60 g) of the flour.

SPONGE FOR SEVEN-LAYER CAKE

Add 50% (6 oz/188 g) egg yolks and 10% (1.25 oz/38 g) glucose to the first stage of mixing. Scale at 1 lb 12 oz (800 g) per sheet pan or 14 oz (400 g) per half-pan.

ALMOND SPONGE I

Make the following ingredient adjustments:

Add 50% (6 oz/188 g) yolks to the first mixing stage.

Increase the sugar to 150% (1 lb 2 oz/560 g).

Add 117% (14 oz/440 g) almond powder, mixed with the sifted flour.

(For more variations, substitute other nuts for the almonds.)

ALMOND SPONGE II

Blend 125% (15 oz/470 g) almond paste with 50% (6 oz/188 g) egg yolks until smooth. Blend in the sugar (from the basic recipe) until smooth. Add the eggs, and proceed as in the basic recipe. (*Note:* This mix does not develop as much volume as regular genoise, and it makes a layer $\frac{7}{8}$ -in. (22-mm) thick if scaled like genoise. If desired, scale 25% heavier to make a thicker layer.)

SPONGE ROLL I

Omit the butter from the basic recipe.

CHOCOLATE SPONGE ROLL I

Omit the butter from the chocolate genoise mix.

GENOISE MOUSSELINE

For large-quantity measurements, see page 734.

Ingredients	U.S.	Metric	%	PROCEDURE
Whole eggs	10 oz	300 g	167	MIXING Plain sponge method (p. 385)
Egg yolks	1.33 oz (2 yolks)	40 g (2 yolks)	22	
Sugar	6 oz	180 g	100	
Cake flour, sifted	6 oz	180 g	100	SCALING AND BAKING See table on page 392.
Total weight:	1 lb 7 oz	700 g	389%	

SPONGE ROLL II (SWISS ROLL)

Ingredients	U.S.	Metric	%	PROCEDURE
Egg yolks	12 oz	350 g	100	MIXING Separated-egg sponge method (p. 385)
Sugar	8 oz	235 g	67	
Cake flour	12 oz	350 g	100	SCALING 1 lb 12 oz (820 g) per sheet pan. Line the pans with greased paper.
Egg whites	1 lb 2 oz	525 g	150	
Salt	0.25 oz	7 g	2	BAKING 425°F (220°C), about 7 minutes
Sugar	6 oz	175 g	50	
Total weight:	3 lb 8 oz	1642 g	469%	

VARIATIONS

DOBOS MIX

Blend 100% (12 oz/350 g) almond paste with the sugar. Add a little of the yolks and blend until smooth. Add the rest of the yolks and proceed as in the basic formula.

SCALING AND PANNING

Seven layers are needed to make Dobos torte (see p. 460 for assembly instructions). For a round Dobos torte, spread a thin layer of mix onto the greased, floured bottoms of upside-down cake pans or onto circles traced on parchment. One recipe makes about seven 12-in. (30-cm) circles or fourteen 8- or 9-in. (20–22-cm) circles. For rectangular torten, spread a thin layer of mix on greased, paper-lined pans. Four times the basic recipe makes seven full-size sheets. To make only one strip, scale 20 oz (550 g) onto one sheet pan. When baked, cut into seven 3½-in. (9-cm) wide strips.

BAKING

400°F (200°C)

CHOCOLATE SPONGE ROLL II (CHOCOLATE SWISS ROLL)

Sift 17% (2 oz/60 g) cocoa with the flour. Add 25% (3 oz/90 g) water to the whipped egg yolks.

JELLY ROLL SPONGE

Ingredients	U.S.	Metric	%	PROCEDURE
Sugar	11 oz	325 g	100	MIXING Plain sponge method (p. 385)
Whole eggs	10 oz	292 g	90	
Egg yolks	2 oz	65 g	20	Add the honey or syrup, the first quantity of water, and the vanilla to the sugar and eggs for the first mixing stage.
Salt	0.25 oz	8 g	2	
Honey or corn syrup	1.5 oz	45 g	14	
Water	1 oz	30 g	10	SCALING AND BAKING See the table on page 392. One recipe makes 2 sheet pans. Line the pans with greased paper. Immediately after baking, turn the cakes out of the pans onto a sheet of parchment and remove the paper from their bottoms. Spread with jelly and roll up tightly. When cool, dust with confectioners' sugar.
Vanilla extract	0.12 oz (¾ tsp)	4 g	1	
Water, hot	4 oz	118 g	36	
Cake flour	11 oz	325 g	100	
Baking powder	0.16 oz (1 tsp)	5 g	1.5	
Total weight:	2 lb 7 oz	1217 g	374 %	

MILK AND BUTTER SPONGE

For large-quantity measurements, see page 734.

Ingredients	U.S.	Metric	%	PROCEDURE
Sugar	10 oz	312 g	125	MIXING Hot milk and butter sponge method (p. 385)
Whole eggs	6 oz	188 g	75	
Egg yolks	2 oz	60 g	25	
Salt	0.12 oz ($\frac{5}{8}$ tsp)	4 g	1.5	
Cake flour	8 oz	250 g	100	SCALING AND BAKING Cake layers; see table on page 392.
Baking powder	0.25 oz	8 g	3	
Skim milk	4 oz	125 g	50	VARIATION Instead of vanilla, add 1.5% (0.5 oz/15 g) lemon flavor.
Butter	2 oz	60 g	25	
Vanilla extract	0.25 oz	8 g	3	
Total weight:	2 lb 4 oz	1015 g	407 %	

ANGEL FOOD CAKE

Ingredients	U.S.	Metric	%	PROCEDURE
Egg whites	2 lb	1000 g	267	MIXING Angel food method (p. 388)
Cream of tartar	0.25 oz	8 g	2	
Salt	0.17 oz (1 tsp)	5 g	1.5	SCALING AND BAKING See table on page 392.
Sugar	1 lb	500 g	133	
Vanilla extract	0.33 oz (2 tsp)	10 g	2.5	
Almond extract	0.17 oz (1 tsp)	5 g	1.25	
Sugar	1 lb	500 g	133	VARIATIONS
Cake flour	12 oz	375 g	100	
Total weight:	4 lb 12 oz	2403 g	640 %	CHOCOLATE ANGEL FOOD CAKE Substitute 3 oz (90 g) cocoa for 3 oz (90 g) of the flour.



COCONUT MACAROON CUPCAKES

Increase the first quantity of sugar to 167% (1 lb 4 oz/625 g). Mix 350% (2 lb 10 oz/1300 g) macaroon coconut with the flour/sugar mixture. Scale at 20 oz (575 g) per dozen cupcakes. Bake at 375°F (190°C), about 25 minutes.

CHOCOLATE FUDGE CAKE

Ingredients	U.S.	Metric	%
Unsweetened chocolate	1 lb	500 g	400
Butter	1 lb	500 g	400
Eggs	1 lb 4 oz	625 g	500
Sugar	1 lb 4 oz	625 g	500
Bread flour	4 oz	125 g	100
Total weight:	4 lb 12 oz	2375 g	1900%



PROCEDURE

MIXING

Plain sponge method (p. 385)

Melt the chocolate and butter together over a hot-water bath. Fold the chocolate mixture into the egg-sugar foam before folding in the flour.

SCALING

7-in. (18-cm) round pan: 19 oz (550 g)

8-in. (20-cm) round pan: 25 oz (750 g)

9-in. (23-cm) round pan: 31 oz (950 g)

10-in. (25-cm) round pan: 38 oz (1100 g)

Butter the pans heavily before panning.

BAKING

350°F (175°C) until slightly underbaked, 20–30 minutes. Set the cake pans on sheet pans to avoid scorching the bottoms.

Cool and glaze with warm Ganache (p. 272).

VARIATION

CHOCOLATE SURPRISE CAKE

Fill large muffin tins or similar pans three-quarters full of batter. Insert a 1-oz (30-g) ball of cold Ganache (p. 272) into the center of each. Bake at 350°F (175°C), about 15 minutes. Turn out and serve warm with whipped cream or ice cream. The melted ganache will run out when the cake is cut open.

JOCONDE SPONGE CAKE (BISCUIT JOCONDE)

For large-quantity measurements, see page 735.

Ingredients	U.S.	Metric	%
Powdered almonds	3.5 oz	85 g	340
Confectioners' sugar	3 oz	75 g	300
Cake flour	1 oz	25 g	100
Whole eggs	4.75 oz	120 g	480
Egg whites	3.25 oz	80 g	320
Sugar	0.4 oz (2½ tsp)	10 g	40
Butter, melted	1.25 oz	30 g	120
Total weight:	1 lb 1 oz	425 g	1700%

PROCEDURE

MIXING

- Mix together the almonds, confectioners' sugar, and flour in a bowl.
- Add the eggs a little at a time. Mix well after each addition. Mix until smooth and light.
- Whip the egg whites with the sugar until they form firm, glossy peaks.
- Gently fold the egg mixture into the whipped egg whites.
- Fold in the melted butter.

SCALING AND BAKING

Spread ¼ in. (5 mm) thick in half-sheet pans lined with parchment. Allow 1 lb (425 g) per half-sheet pan. Bake at 400°F (200°C) for 15 minutes, or until golden and firm to the touch. Remove from the pans and cool on a rack.

VARIATION

HAZELNUT JOCONDE SPONGE CAKE

Substitute powdered hazelnuts for the powdered almonds. Omit the melted butter.

RIBBON SPONGE

Yield: 2 half-sheet pans

Ingredients	U.S.	Metric
Stencil paste		
Butter	7 oz	200 g
Confectioners' sugar	7 oz	200 g
Egg whites	7 oz	200 g
Cake flour	7.75 oz	220 g
Powdered food coloring (see variation)	as needed	as needed
Joconde Sponge batter (p. 409)	2 lb	850 g

Note: This cake is used for decorative linings for cake molds and charlotte molds. Chapter 18 includes instructions for using the baked ribbon sponge. The stencil paste used to make the designs is another version of the batter used for Tuile cookies (p. 510).

It is advisable to bake this sponge on a silicone mat so the bottom of the cake doesn't brown. If a mat is not available, double-pan (set one sheet pan on top of another) and bake on the top shelf of the oven.

PROCEDURE

1. Beat the butter until soft. Add the sugar and mix well.
2. Add the egg whites, beating continuously.
3. Sift the flour into the mixture. Mix until smooth.
4. Color the paste with food coloring if desired.

5. Line the bottom of a sheet pan with a silicone mat.

6. Use one of the two following procedures to make the stencil design:

Cover the bottom of a sheet pan with a silicone mat. Place a stencil on top of the mat, spread with a thin layer of the paste, and remove the stencil.

or

Spread a thin layer of the paste onto a silicone mat with a palette knife (a). Comb with a plastic pastry comb to make stripes, as shown here, or zigzags, wavy lines, or other patterns (b). Alternatively, apply an abstract finger-painted design by depositing dabs of colored stencil paste (c) and spreading them thin with a palette knife (d). If desired, make abstract finger-painted designs with the fingers (e).

7. Place the mat in the freezer until the paste is firm.
8. Cover the stencil paste with joconde sponge cake batter, spreading it to an even layer $\frac{1}{4}$ in. (5 mm) thick (f).
9. Bake in a 475°F (250°C) oven for about 15 minutes.
10. Transfer to a baking rack to cool.
11. Cut the strip to the desired length and use to line ring molds.



VARIATIONS

To make chocolate stencil paste for brown and white ribbon sponge, substitute cocoa powder for *one-fifth* of the cake flour.

Plain genoise may be used instead of joconde sponge.

LADYFINGER SPONGE

Ingredients	U.S.	Metric	%	PROCEDURE
Egg yolks	6 oz	180 g	60	MIXING Separated-egg sponge method (p. 385)
Sugar	3 oz	90 g	30	
Egg whites	9 oz	270 g	90	PANNING AND BAKING One recipe is enough for one full-size sheet pan. Use one of two methods for sponge sheets:
Sugar	5 oz	150 g	50	
Lemon juice	¼ tsp	1 mL	0.4	<ol style="list-style-type: none"> Using a pastry bag fitted with a medium plain tip, pipe the sponge mix in diagonal lines on a sheet pan lined with parchment. Pipe the strips of batter so they touch each other and the entire pan is filled with the sponge batter. Alternatively, simply spread with a palette knife. Bake at 375°F (190°F) for about 10 minutes.
Pastry flour	10 oz	300 g	100	
Total weight:	2 lb 1 oz	990 g	340 %	



VARIATION

LADYFINGER COOKIES

Pipe batter as in first method above, but in strips 3½ in. (9 cm) long; and keep them separate, not touching. Dredge the pan generously with confectioners' sugar. Grasp the parchment by two adjacent corners and lift, to let excess sugar fall off. Bake as directed above. One recipe makes about 100 ladyfingers.

MARJOLAINE SPONGE CAKE

For large-quantity measurements, see page 735.

Ingredients	U.S.	Metric	%	PROCEDURE
Confectioners' sugar	4 oz	120 g	133	MIXING Sponge method variation:
Powdered almonds	4 oz	120 g	133	
Egg yolks	3.33 oz	100 g	111	<ol style="list-style-type: none"> Combine the confectioners' sugar, almonds, and egg yolks. Beat well. Add the first quantity of egg whites. Whip until thick and light. Whip the second quantity of egg whites with the sugar to make a common meringue. Fold into the egg yolk mixture. Fold in the flour.
Egg whites	2 oz	60 g	67	
Egg whites	5 oz	150 g	167	MAKEUP AND BAKING
Sugar	3 oz	90 g	100	
Pastry flour, sifted	3 oz	90 g	100	Line sheet pans with parchment paper. Fit a pastry bag with a medium plain tip. Pipe disks of the desired size using the technique shown on page 345. Bake for 10 minutes at 350°F (180°C).
Total weight:	1 lb 8 oz	730 g	811%	

HAZELNUT SPONGE CAKE

For large-quantity measurements, see page 735.

Ingredients	U.S.	Metric	%	PROCEDURE
Butter, softened	4.5 oz	135 g	337	<p>MIXING</p> <p>Combination creaming/sponge method:</p> <ol style="list-style-type: none"> 1. Cream the butter and first quantity of sugar. 2. Add the egg yolks in several stages, beating well after each addition. 3. Whip the egg whites and second quantity of sugar to a stiff meringue. 4. Sift together the flour and cocoa. Mix in the hazelnuts. 5. Fold the meringue and the dry ingredients alternately into the butter mixture, starting and finishing with the meringue. <p>SCALING</p> <p>12 oz (370 g) per 8-in. (20-cm) round pan. Grease the pans and line the bottoms with parchment. Flour the sides of the pans.</p> <p>BAKING</p> <p>325°F (160°C), about 40 minutes</p>
Sugar	3.67 oz	110 g	275	
Egg yolks	4 oz	120 g	300	
Egg whites	6 oz	180 g	450	
Sugar	2 oz	60 g	160	
Cake flour	1.33 oz	40 g	100	
Cocoa powder	1.33 oz	40 g	100	
Ground hazelnuts, toasted	1.75 oz	55 g	138	
Total weight:	1 lb 8 oz	740 g	1860%	

ALMOND POUND CAKE (PAIN DE GÊNES)

Ingredients	U.S.	Metric	%	PROCEDURE
Almond paste	7.5 oz	225 g	167	<p>MIXING</p> <p>Modified separated-egg sponge method:</p> <ol style="list-style-type: none"> 1. Mix the almond paste and confectioners' sugar to a sandlike consistency. 2. Mix in the egg yolks, a little at a time. Then add the whole egg and vanilla. Beat well until smooth and light. 3. Whip the egg whites to soft peaks. Add the sugar and whip to stiff peaks. 4. Fold the meringue into the almond paste mixture. 5. Fold in the flour and melted butter. <p>PAN PREPARATION, SCALING, AND BAKING</p> <ol style="list-style-type: none"> 1. Butter the bottom and sides of round or square cake pans. Line the insides of the pans with the sliced almonds. 2. For scaling, use the figures for high-fat cakes in the table on page 392 at the high end of the weight range. 3. Bake at 340°F (170°C) for 20–25 minutes.
Confectioners' sugar	5 oz	150 g	111	
Egg yolks	4 oz	120 g	89	
Whole eggs	1.67 oz	50 g	37	
Vanilla extract	0.07 oz (½ tsp)	2 g	1.5	
Egg whites	6 oz	180 g	133	
Sugar	2.5 oz	75 g	56	
Cake flour	4.5 oz	135 g	100	
Butter, melted	2.33 oz	70 g	52	
Sliced almonds	2 oz	50 g	37	
Total weight:	2 lb 1 oz	1057 g	783 %	

BAUMKUCHEN

Ingredients	U.S.	Metric	%
Butter	7 oz	200 g	114
Sugar	5 oz	150 g	85
Vanilla extract	0.07 oz (½ tsp)	2 g	1
Lemon zest, grated	0.03 oz (½ tsp)	1 g	0.5
Egg yolks	2.5 oz	80 g	43
Egg whites	7 oz	210 g	120
Sugar	5 oz	150 g	85
Cornstarch	6 oz	175 g	100
Powdered almonds	2.25 oz	65 g	37
Salt	0.07 oz (½ tsp)	2 g	1
Total weight:	2 lb 2 oz	1035 g	586 %

PROCEDURE

MIXING

Combination creaming/sponge method:

1. Cream the butter, sugar, vanilla, and zest until light.
2. Beat in the egg yolks a little at a time.
3. Whip the egg whites until they form soft peaks. Add the sugar and whip until they form stiff, glossy peaks.
4. Fold the cornstarch into the egg whites.
5. Mix together the almonds and salt.
6. Fold the meringue and the almonds alternately into the butter mixture, starting and finishing with meringue.

BAKING

1. Line the bottom of an 8-in. (20-cm) square cake pan with parchment.
2. Put about 1 oz (30 g) batter in the pan and spread it smooth with a small offset palette knife (a).
3. Place under a salamander or broiler until well and evenly browned (b).
4. Repeat steps 2 and 3 until the cake is about 1½ in. (4 cm) thick (c).
5. Chill.
6. The cut cake reveals a pattern of layers (d). It is used to line charlotte molds (p. 455). It can also be cut into small pieces and served plain or iced with fondant (p. 421) as petits fours.



BAUMKUCHEN

Baumkuchen is an unusual cake that deserves explanation. The name means “tree cake” in German. Traditionally, it was made on a revolving wooden spit. The batter was ladled on in thin layers as the spit rotated in front of a heat source. As each layer cooked and browned on the surface, another layer was added. Thus, cutting into the cake revealed a series of concentric rings, resembling tree rings.

Today, baumkuchen is generally made in cake pans, as illustrated. Its unusual striped interior makes it valuable for the decorative lining of cake and charlotte molds.

ALMOND CHOCOLATE SPONGE

For large-quantity measurements, see page 735.

Ingredients	U.S.	Metric	%	PROCEDURE
Marzipan	4.33 oz	130 g	325	
Egg yolks	2.67 oz (4 yolks)	80 g (4 yolks)	200	
Egg whites	4 oz (4 whites)	120 g (4 whites)	300	
Sugar	1.67 oz (4 tbsps)	50 g	125	
Cake flour	1.33 oz	40 g	100	
Cocoa powder	1.33 oz	40 g	100	
Butter, melted	1.33 oz	40 g	100	
Total weight:	1 lb	500 g	1250%	

CHOCOLATE SPONGE LAYERS

For large-quantity measurements, see page 735.

Ingredients	U.S.	Metric	%	PROCEDURE
Egg whites	5 oz	150 g	150	
Sugar	4 oz	120 g	120	
Egg yolks	3.5 oz	100 g	100	
Cake flour	3.5 oz	100 g	100	
Cocoa powder	1 oz	30 g	30	
Total weight:	1 lb 1 oz	500 g	500%	

CHOCOLATE VELVET CAKE (MOELLEUX)

For large-quantity measurements, see page 735.

Ingredients	U.S.	Metric	%	PROCEDURE
Almond paste	2.5 oz	75 g	188	
Confectioners' sugar	1.67 oz	50 g	125	
Egg yolks	2 oz	60 g	150	
Egg whites	2 oz	60 g	150	
Sugar	0.83 oz (5 tsp)	25 g	63	
Cake flour	1.33 oz	40 g	100	
Cocoa powder	0.33 oz	10 g	25	
Butter, melted	0.67 oz	20 g	50	
For baking (optional)				
Almonds, chopped	1 oz	30 g	75	
Total batter weight:	11 oz	340 g	851%	



LEMON MADELEINES

For large-quantity measurements, see page 736.

Ingredients	U.S.	Metric	%
Butter	5 oz	150 g	100
Sugar	4.7 oz	140 g	94
Honey	0.8 oz	24 g	16
Salt	0.01 oz	0.4 g	0.25
Grated lemon zest	0.23 oz	10 g	4.5
Eggs	5.5 oz	165 g	67
Pastry flour	5 oz	150 g	100
Baking powder	0.13 oz	3.8 g	2.5
Total weight:	1 lb 5 oz	640 g	427 %

VARIATION

CHOCOLATE AND ORANGE MADELEINES

For large-quantity measurements, see page 736.

Ingredients	U.S.	Metric	%
Butter	5 oz	150 g	143
Sugar	4.7 oz	140 g	134
Honey	0.8 oz	24 g	2
Salt	0.01 oz	0.4 g	0.3
Grated orange zest	0.35 oz	10 g	10
Eggs	5.5 oz	165 g	157
Pastry flour	3.5 oz	105 g	100
Cocoa powder	1.2 oz	35 g	34
Baking powder	0.18 oz	5 g	5

Follow the basic procedure, but make changes to the ingredients as listed above.

PROCEDURE

MIXING

Creaming method. Chill the batter for at least 20 minutes.

PANNING AND BAKING

1. Double-butter madeleine pans and dust with flour. Pipe batter into the pans using a pastry bag fitted with a medium plain tip. Each small or petit four-size madeleine (1½ × 1 in. or 4 × 2.5 cm) requires about ⅓ oz (5 g) batter; a large madeleine (2½ × 1½ in. or 6.5 × 4 cm) requires about ⅔ oz (20 g) batter.
2. Bake at 400°F (200°C) until golden but still soft to the touch, about 6–7 minutes for small madeleines, at least twice as long for large.
3. Unmold onto wire racks to cool.



MARRONIER (CHESTNUT CAKE PETITS FOURS)

Ingredients	U.S.	Metric	%	PROCEDURE
Sweetened chestnut purée	3.5 oz	100 g	133	<p>MIXING</p> <ol style="list-style-type: none"> 1. Soften the chestnut purée by mixing in the rum. 2. Whip the egg whites and granulated sugar to a stiff meringue. Fold into the chestnut purée. 3. Fold in the confectioners' sugar, almonds, and flour. 4. Fold in the melted butter. <p>SCALING AND BAKING</p> <ol style="list-style-type: none"> 1. Butter and flour 2-in. (5-cm) tartlet molds. 2. Fill each mold with ½ oz (15 g) batter. 3. Bake at 375°F (190°C) for 8 minutes. 4. Remove from the molds immediately after baking. Cool on racks. 5. When completely cool, dust the tops with confectioners' sugar. Top each cake with a half chestnut.
Rum	0.33 oz (2 tsp)	10 g	13	
Egg whites	8 oz	240 g	320	
Granulated sugar	1.67 oz	50 g	67	
Confectioners' sugar, sifted	5 oz	150 g	200	
Powdered almonds	2 oz	60 g	80	
Cake flour	2.5 oz	75 g	100	
Butter, melted	3.5 oz	100 g	133	
Garnish				
Confectioners' sugar	as needed	as needed		
Sugar-glazed chestnut halves	48	48		
Total batter weight:	1 lb 10 oz	785 g	1046%	

TERMS FOR REVIEW

emulsion	two-stage method	sponge method	pound cake
air cell	one-stage method	genoise	baumkuchen
creaming method	flour-batter method	angel food method	
high-fat cake	egg-foam cake	chiffon method	



QUESTIONS FOR DISCUSSION

1. What are the three main goals of mixing cake batter?
2. How are the following concepts related to the goals in question 1: (a) emulsion; (b) creaming of fat and sugar; (c) gluten development?
3. What are four precautions you should take to prevent a cake batter from curdling or separating?
4. List the steps in the creaming method of cake mixing.
5. List the steps in the two-stage, or high-ratio, mixing method.
6. List the steps in the sponge method. What extra steps are needed in the butter sponge method? In the hot milk and butter sponge method? In the separated-egg sponge method?
7. What are the advantages and disadvantages of using butter in high-fat cakes?
8. Why is there a lot of emphasis on scraping down the sides of the bowl and the beater in both the creaming and the two-stage methods?
9. How is mixing a creaming-method cake different from mixing a combination creaming/sponge method cake?
10. Which of the following cake ingredients are considered tougheners? Which are tenderizers? Dryers? Moisteners?

flour	egg whites	milk (liquid)
butter	egg yolks	cocoa
sugar	whole eggs	water
11. Why should angel food cake pans not be greased?



Assembling and Decorating Cakes

17

AFTER READING THIS CHAPTER, YOU SHOULD BE ABLE TO:

1. Prepare icings.
2. Assemble and ice simple layer cakes, sheet cakes, and cupcakes.
3. Make and use a paper decorating cone.
4. Use a pastry bag to make simple icing decorations.



MUCH OF THE appeal of cakes is due to their appearance. Cakes are an ideal medium in which a baker can express artistry and imagination. A cake need not be elaborate or complex to be pleasing. Certainly, a simple but neatly finished cake is more appealing than a gaudy, overdecorated cake that is done carelessly or without any plan for a harmonious overall design.

There are, of course, many styles of cake decorating, and within each style hundreds or thousands of designs are possible. This chapter is, in part, an introduction to basic techniques for finishing cakes. The most important requirement for making effective desserts is practice—hours and hours of practice with the pastry bag and paper cone, the decorator’s chief tools. Even the simplest designs (such as

straight lines) require a lot of repetition. Only when you have mastered the basic skills should you proceed to the more advanced techniques presented in style manuals and cake decorating books.

A cake must be assembled and iced before it can be decorated. Therefore, we begin with a study of icings, and include recipes for many variations. Then we discuss the procedures for assembling basic layer cakes, sheet cakes, and other simple products. Examples of more elaborate cakes, including French and other European-style gâteaux and torten, are introduced in Chapter 18.

ICINGS

ICINGS, ALSO CALLED *frostings*, are sweet coatings for cakes and other baked goods. Icings have three main functions:

- They contribute flavor and richness.
- They improve appearance.
- They improve keeping qualities by forming protective coatings around cakes.

There are eight basic types of icings and other cake coatings:

- Fondant
- Buttercreams
- Foam-type icings
- Fudge-type icings
- Flat-type icings
- Royal or decorator's icing
- Glazes
- Rolled coatings

Use top-quality flavorings for icings so they enhance the cake rather than detract from it. Use moderation when adding flavors and colors. Flavors should be light and delicate. Colors should be delicate pastel shades—except chocolate, of course.

Fondant

Fondant is a sugar syrup that is crystallized to a smooth, creamy white mass. It is familiar as the icing for napoleons, éclairs, petits fours, and some cakes. When applied, it sets up into a shiny, nonsticky coating.

A note is in order regarding the word “crystallized” in the previous paragraph. In Chapter 12, in the discussion of cooking sugar syrups, we stressed the importance of avoiding crystallization because it causes graininess. So how can crystallization occur in a smooth icing? When you read Procedure and Guidelines for Using Fondant, you will see this white icing starts as a sugar solution that is as clear as water. It is crystallization that turns it white and opaque. The key is to control the temperature so when the crystals form, they are microscopically tiny. This is what keeps the fondant smooth and shiny. If the fondant is not made correctly, or is heated too much when used, the crystals become larger and the icing loses its shine and smoothness.

Because it is difficult to make in the bakeshop, fondant is almost always purchased already prepared, either in the ready-to-use moist form or the dry form, which requires only the addition of water. In an emergency (for instance, if you run out of fondant and there is no time to get more from your supplier), flat icing can be substituted, although it will not perform as well.

For those who wish to try making fondant, a formula is included here. The purpose of the glucose or cream of tartar is to invert some of the sugar in order to get the right amount of crystallization. If none is used, the syrup will set up to be too unworkable, and it will not be smooth and white. When an excess of glucose or cream of tartar is added, not enough crystallization will take place and the fondant will be too soft and syrupy. Also, if the hot syrup is disturbed before it cools sufficiently (step 6 in the procedure), large crystals will form and the fondant will not be smooth and shiny.

Another type of fondant, rolled fondant, is handled and applied differently from poured fondant, as discussed on page 433.

ICINGS AND FROSTINGS

Most people use the terms *icing* and *frosting* interchangeably, and for the most part they do mean the same thing. More specifically, however, products applied by pouring over an item, such as fondant and flat icing, are rarely referred to as *frostings*. Royal icing, as well, is always called *icing*, not *frosting*. When the term *frosting* is used, it is likely to mean a thicker product that is applied with a palette knife or spatula, such as buttercream. But these are not absolute definitions. Many pastry chefs are in the habit of calling all these products *icings*.

PROCEDURE AND GUIDELINES: Using Fondant

1. Heat the fondant over a warm-water bath, stirring constantly, to thin it and make it pourable. Do not heat it over 100°F (38°C), or it will lose its shine.
2. If it is still too thick, thin it with a little simple sugar syrup or water.
3. Add flavorings and colorings as desired.
4. To make *chocolate fondant*, stir melted unsweetened chocolate into the warm fondant until the desired color and flavor are reached (up to about 3 oz bitter chocolate per lb of fondant, or 190 g per kg). Chocolate will thicken the fondant, so the icing may require more thinning with sugar syrup.
5. Apply the warm fondant by pouring it over the item or by dipping items into it.

FONDANT

Yield: 6–7 lb (3–3.5 kg)

Ingredients	U.S.	Metric	Sugar at 100%	PROCEDURE
			%	
Sugar	6 lb	3000 g	100	<ol style="list-style-type: none"> 1. Clean a marble slab well and moisten it with water. Set 4 steel bars on the slab in the shape of a square to hold the hot syrup when it is poured onto the marble. 2. Combine the sugar and water in a heavy kettle and heat to dissolve the sugar. Boil until the temperature reaches 225°F (105°C). 3. If glucose is used, warm it. If cream of tartar is used, disperse it in a little warm water. Add the glucose or the cream of tartar to the boiling syrup. 4. Continue to boil the syrup until it reaches 240°F (115°C). 5. Pour the boiling syrup onto the marble slab and sprinkle it with a little cold water to prevent crystallization. 6. Let the syrup cool undisturbed to about 110°F (43°C). 7. Remove the steel bars and work the sugar with a steel scraper, turning it from the outside to the center. It will turn white and begin to solidify. 8. Continue to work the fondant, either by hand or by putting it in a mixing bowl and working it slowly with the paddle attachment, until it is smooth and creamy. 9. Keep the fondant in a tightly covered container.
Water	1 lb 8 oz	750 g	25	
Glucose	1 lb 2 oz	570 g	19	
<i>or</i>				
Cream of tartar	0.5 oz	15 g	0.5	

Buttercreams

Buttercream icings are light, smooth mixtures of fat and sugar. They may also contain eggs to increase their smoothness or lightness. These popular icings for many kinds of cakes are easily flavored and colored to suit a variety of purposes.

There are many variations of buttercream formulas. We cover five basic kinds in this chapter:

1. **Simple buttercreams** are made by creaming together fat and confectioners' sugar to the desired consistency and lightness. A small quantity of egg whites, yolks, or whole eggs may be whipped in. (For safety, use only pasteurized eggs.) Some formulas also include nonfat milk solids.

Decorator's buttercream (sometimes called *rose paste*) is a special type of simple buttercream used for making flowers and other cake decorations. It is creamed only a little, at low speed, as too much air beaten into it would make it unable to hold delicate shapes. Because shortening has a higher melting point than butter, it is often used as the only fat in decorator's buttercream, to give maximum stability to the finished décor. However, when possible, a little butter may be included to improve the flavor.

2. **Meringue-type buttercreams** are a mixture of butter and meringue. These are very light icings. The most frequently made of these kinds of buttercreams is Italian buttercream, made with Italian Meringue (p. 264). Swiss Meringue (p. 263) can also be used as the base for buttercream.
3. **French buttercreams** are prepared by beating a boiling syrup into beaten egg yolks, and whipping to a light foam. Soft butter is then whipped in. These are very rich, but light, icings.
4. **Pastry cream-type buttercream**, in its simplest form, is made by mixing together equal parts thick pastry cream and softened butter, and whipping until light. If more sweetness is desired, sifted confectioners' sugar may be mixed in. The recipe included in this chapter (Vanilla Cream, p. 426) contains a lower proportion of butter than usual. To give it the necessary body, a little gelatin is added. This type of preparation is better suited for use as a cake filling rather than an exterior icing.
5. **Fondant-type buttercream** is simple to make with only a few ingredients on hand. Simply cream together equal parts fondant and butter. Flavor as desired.

Butter, especially unsalted butter, is the preferred fat for buttercreams because of its flavor and melt-in-the-mouth quality. Icings made with shortening only can be unpleasant because the fat congeals and coats the inside of the mouth, where it does not melt. However, butter makes a less stable icing because it melts so easily. There are two ways around this problem:

- Use buttercreams only in cool weather.
- Blend a small quantity of emulsifier shortening with the butter to stabilize it.

Buttercreams may be stored, covered, in the refrigerator for several days. However, they should always be used at room temperature in order to have the right consistency. Before using, remove buttercream from the refrigerator at least 1 hour ahead of time and let it come to room temperature. If it must be warmed quickly, or if it curdles, warm it gently over warm water and beat it well until smooth.

Flavoring Buttercreams

Buttercreams may be combined with many flavorings, making them versatile and adaptable to many kinds of cakes and desserts.

The quantities given in the following variations are suggested amounts for each 1 pound (500 g) buttercream. In practice, flavorings may be increased or decreased to taste, but avoid flavoring icings too strongly. Unless the instructions say otherwise, simply blend the flavoring into the buttercream.

1. **Chocolate.** Use 3 ounces (90 g) semisweet dark chocolate. Melt chocolate and cool slightly. (Chocolate must not be too cool or it will solidify before completely blending with the buttercream.) Blend with about one-quarter of the buttercream, then blend this mixture into the rest.

If your buttercream base is very sweet, use 1½ ounces (45 g) unsweetened chocolate instead of the sweet chocolate.

2. **Coffee.** Use $\frac{2}{3}$ fluid ounces (20 mL) coffee compound (coffee flavoring), or $1\frac{1}{2}$ tablespoon (5 g) instant coffee dissolved in $\frac{1}{2}$ ounce (15 mL) water.
3. **Marron (chestnut).** Use 8 ounces (250 g) chestnut purée. Blend with a little of the buttercream until soft and smooth, then blend this mixture into the remaining buttercream. Flavor with a little rum or brandy, if desired.
4. **Praline.** Use 2 to 3 ounces (60 to 90 g) praline paste. Blend with a little of the buttercream until soft and smooth, then blend this mixture into the remaining buttercream.
5. **Almond.** Use 6 ounces (180 g) almond paste. Soften almond paste with a few drops of water. Blend in a little of the buttercream until soft and smooth, then blend this mixture into the remaining buttercream.
6. **Extracts and emulsions** (orange, lemon, etc.). Add according to taste.
7. **Spirits and liqueurs.** Add according to taste. For example: kirsch, orange liqueur, rum, brandy.

SIMPLE BUTTERCREAM

For large-quantity measurements, see page 736.

Ingredients	U.S.	Metric	Sugar at 100% %	PROCEDURE
Butter	8 oz	250 g	40	
Shortening	4 oz	125 g	20	
Confectioners' sugar	1 lb 4 oz	625 g	100	
Egg whites, pasteurized	1.25 oz	40 g	7.5	
Lemon juice	0.08 oz ($\frac{1}{2}$ tsp)	2 g	0.4	
Vanilla extract	0.12 oz ($\frac{3}{4}$ tsp)	4 g	0.6	
Water (optional)	1 oz	30 g	5	
Total weight:	2 lb 2 oz	1076 g	172 %	

VARIATIONS

For flavored buttercreams, see pages 422–423.

SIMPLE BUTTERCREAM WITH EGG YOLKS OR WHOLE EGGS

Instead of the egg whites in the above recipe, substitute an equal weight of pasteurized egg yolks or whole eggs. These substitutions make slightly richer icings. Also, the egg yolks help make a better emulsion.

DECORATOR'S BUTTERCREAM OR ROSE PASTE

Use 7 oz (200 g) regular shortening and 3 oz (90 g) butter. Omit the lemon juice and vanilla. Add 0.75 oz (22 g) of either water or egg whites. Blend at low speed until smooth; do not whip.

CREAM CHEESE ICING

Substitute cream cheese for the butter and shortening. Omit the egg whites. If necessary, thin the icing with cream or milk. If desired, flavor with grated lemon or orange zest instead of vanilla, and use orange juice and/or lemon juice instead of milk for thinning the icing.

ITALIAN BUTTERCREAM

Yield: 1 lb 11 oz (850 g)

For large-quantity measurements, see page 736.

Ingredients	U.S.	Metric	Sugar at 100% %
Italian meringue			
Sugar	8 oz	250 g	100
Water	2 oz	60 mL	25
Egg whites	4 oz	125 g	50
Butter, soft			
Emulsified shortening (or additional butter)	2 oz	60 mL	25
Lemon juice	0.08 oz (½ tsp)	2 mL	1
Vanilla extract	0.12 oz (¾ tsp)	4 mL	1.5

PROCEDURE

1. Make the meringue (Italian Meringue procedure on p. 264). Whip until completely cool.
2. Little by little, add the soft butter and continue to whip (a). Add each piece after the previous one has been incorporated. In the same way, whip in the shortening, if using, or the additional butter.
3. When all the fat has been incorporated, whip in the lemon juice and vanilla.
4. Continue to whip until the buttercream is smooth. (The mixture will appear curdled at first (b), but it will become smooth with continued whipping (c).)



A



B



C

VARIATIONS

For flavored buttercreams, see pages 422–423.

SWISS BUTTERCREAM

Instead of making Italian buttercream, use the sugar and (pasteurized) egg whites (omitting the water) in the formula to make a Swiss meringue, as described on page 263. When the meringue has cooled to room temperature, continue with step 2 in the basic recipe.

FRENCH BUTTERCREAM

Yield: 1 lb 6 oz (688 g)

For large-quantity measurements, see page 736.

Ingredients	U.S.		Metric	Sugar at 100%	PROCEDURE
				%	
Sugar	8	oz	250 g	100	<ol style="list-style-type: none"> Combine the sugar and water in a saucepan. Bring to a boil while stirring, to dissolve the sugar. Continue to boil until the syrup reaches a temperature of 240°F (115°C). While the syrup is boiling, beat the yolks with a wire whip or the whip attachment of a mixer until they are thick and light. As soon as the syrup reaches 240°F (115°C), pour it very slowly into the beaten yolks while whipping constantly. Continue to beat until the mixture is completely cool and the yolks are very thick and light. Whip in the butter a little at a time. Add it just as fast as it can be absorbed by the mixture. Beat in the vanilla. If the icing is too soft, refrigerate it until it is firm enough to spread.
Water	2	oz	60 mL	25	
Egg yolks	3	oz	90 g	37.5	
Butter, softened	10	oz	300 g	125	
Vanilla extract	0.12	oz (¾ tsp)	4 mL	1.5	
VARIATIONS					
For flavored buttercreams, see pages 422–423.					

PRALINE BUTTERCREAM

Yield: 1 lb 2 oz (550 g)

For large-quantity measurements, see page 736.

Ingredients	U.S.		Metric	Sugar at 100%	PROCEDURE
				%	
Water	1.5	oz	40 g	33	<ol style="list-style-type: none"> Combine the water and sugar in a saucepan, bring to a boil to dissolve the sugar, and cook the syrup to 248°F (120°C). Whip the egg yolks until light. Gradually add the hot syrup to the yolks, whipping constantly. Whip until cool. Whip in the butter and the praline paste.
Sugar	4	oz	120 g	100	
Egg yolks	3.33	oz (5 yolks)	100 g (5 yolks)	83	
Butter, softened	6	oz	180 g	150	
Praline paste	5	oz	150 mL	125	

CARAMEL BUTTERCREAM

Yield: 1 lb (500 g)

For large-quantity measurements, see page 737.

Ingredients	U.S.	Metric	Sugar at 100%	PROCEDURE
			%	
Water	1 oz	25 g	14	<ol style="list-style-type: none"> 1. Cook the first quantity of water and the sugar to the caramel stage. 2. Let the caramel cool to 250°F (120°C) and then add the second quantity of water and the heavy cream. Cook until dissolved. 3. Add the coffee extract. 4. Whip the egg yolks until light, then whip in the hot caramel. Whip until light; Continue whipping until the mixture has cooled to about 85°F (30°C). 5. Whip in one-third of the butter. When this has been uniformly incorporated, whip in the remaining butter.
Sugar	6.5 oz	185 g	100	
Water	1.75 oz	50 g	27	
Heavy cream	1.25 oz	35 g	19	
Coffee extract	0.2 oz (1 tsp)	5 g	2.7	
Egg yolks	2 oz	60 g	32	
Butter, softened	6.75 oz	190 g	103	

VANILLA CREAM

For large-quantity measurements, see page 737.

Ingredients	U.S.	Metric	PROCEDURE
Pastry Cream (p. 267)	1 lb	450 g	<ol style="list-style-type: none"> 1. Whip the pastry cream until smooth. 2. Soften the gelatin in cold water (see pp. 83–84). Heat the rum. Add the gelatin and stir until dissolved, warming as necessary. 3. Beat the gelatin mixture into the pastry cream. 4. Beat in the butter a little at a time. Whip until smooth and light.
Gelatin	0.25 oz	6 g	
Rum	4 tsp	20 g	
Butter, softened	7 oz	200 g	
Total weight:	1 lb 7 oz	676 g	

LIGHT PRALINE CREAM

For large-quantity measurements, see page 736.

Ingredients	U.S.	Metric	Sugar at 100%	PROCEDURE
			%	
Butter, softened	8 oz	200 g	100	<ol style="list-style-type: none"> 1. Whip together the butter and praline paste until smooth and light. 2. Whip in the cognac. 3. Mix in the Italian meringue. Whip until smooth.
Praline paste	4 oz	100 g	50	
Cognac	1.5 oz	40 g	20	
Italian Meringue (p. 264)	14 oz	340 g	170	
Total weight:	1 lb 11 oz	680 g	340%	

Foam-Type Icings

Foam icings, sometimes called *boiled icings*, are simply meringues made with a boiling syrup. Some also contain stabilizing ingredients like gelatin. Foam icings should be applied thickly to cakes and left in peaks and swirls.

These icings are not stable. Therefore, regular boiled icing should be used the day it is prepared. *Marshmallow icing* should be made just before using and applied while still warm, before it sets.

Plain Boiled Icing

Follow the recipe for Italian Meringue (p. 264), but include 2 ounces (60 g) corn syrup with the sugar and water for the boiled syrup. Flavor the icing to taste with vanilla.

Marshmallow Icing

Soak $\frac{1}{4}$ ounce (8 g) gelatin in $1\frac{1}{2}$ ounces (45 mL) cold water. Warm the water to dissolve the gelatin. Prepare plain boiled icing. Add the dissolved gelatin to the icing after adding the hot syrup. Scrape down the sides of the bowl to make sure that the gelatin is evenly mixed in. Use while still warm.

Chocolate Foam Icing and Filling

Prepare boiled icing. After the syrup has been added, blend in 5 ounces (150 g) melted, unsweetened chocolate.

Fudge-Type Icings

Fudge-type icings are rich and heavy. Many of them are made somewhat like candy. Their predominant ingredient is sugar, and they contain less fat than buttercreams. Fudge icings may be flavored with a variety of ingredients, and are used on cupcakes, layer cakes, loaf cakes, and sheet cakes.

Fudge icings are stable and hold up well on cakes and in storage. Stored icings must, however, be covered tightly to prevent drying and crusting.

To use stored fudge icing, warm it in a double boiler until it is soft enough to spread.

COCOA FUDGE ICING

Yield: 2 lb 6 oz (594 g)

Ingredients	U.S.		Granulated Sugar at 100%		PROCEDURE
			Metric	%	
Granulated sugar	1 lb		500 g	100	<ol style="list-style-type: none"> Combine the granulated sugar, syrup, water, and salt in a saucepan. Bring to a boil, stirring to dissolve the sugar. Boil the mixture until it reaches 240°F (115°C). While the sugar is cooking, mix the fat, confectioners' sugar, and cocoa until evenly combined, using the paddle attachment of the mixer. With the machine running at low speed, slowly pour in the hot syrup. Mix in the vanilla. Continue to beat until the icing is smooth, creamy, and spreadable. If necessary, thin with a little hot water. Use while still warm, or rewarm in a double boiler.
Corn syrup	5 oz		150 g	30	
Water	4 oz		125 mL	25	
Salt	0.1 oz ($\frac{1}{2}$ tsp)		2 g	0.5	
Butter or part butter and part emulsified shortening	4 oz		125 g	25	
Confectioners' sugar	8 oz		250 g	50	
Cocoa	3 oz		90 g	18	
Vanilla extract	0.25 oz		8 mL	1.5	
Water, hot	as needed		as needed		
VARIATION					
VANILLA FUDGE ICING					
Use evaporated milk or light cream instead of water for the syrup. Omit the cocoa. Adjust consistency with additional confectioners' sugar (to thicken) or water (to thin). Other flavorings, such as almond, maple, peppermint, or coffee, may be used in place of vanilla.					

CARAMEL FUDGE ICING

Yield: 2 lb (1 kg)

Ingredients	U.S.	Metric	Sugar at 100%		PROCEDURE
				%	
Brown sugar	1 lb 8 oz	750 g		100	<ol style="list-style-type: none"> 1. Combine the sugar and milk in a saucepan. Bring to a boil, stirring to dissolve the sugar. Boil the mixture until it reaches 240°F (115°C). 2. Pour the mixture into the bowl of a mixer. Let it cool to 110°F (43°C). 3. Turn on the machine and mix at low speed with the paddle attachment. 4. Add the butter, salt, and vanilla, and continue to mix at low speed until cool. Beat the icing until it is smooth and creamy in texture. If it is too thick, thin it with a little water.
Milk	12 oz	375 g		50	
Butter or part butter and part shortening	6 oz	188 g		25	
Salt	0.1 oz (½ tsp)	2 g		0.4	
Vanilla extract	0.25 oz	8 mL		1	

QUICK WHITE FUDGE ICING I

Ingredients	U.S.	Metric	Sugar at 100%		PROCEDURE	
				%		
Water	4 oz	125 mL		12.5	<ol style="list-style-type: none"> 1. Place the water, butter, shortening, syrup, and salt in a saucepan. Bring to a boil. 2. Sift the sugar into the bowl of a mixer. 3. Using the paddle attachment, and with the machine running on low speed, add the boiling water mixture. Blend until smooth. The more the icing is mixed, the lighter it will become. 4. Blend in the vanilla. 5. Use while still warm, or rewarm in a double boiler. If necessary, thin with hot water. 	
Butter	2 oz	60 g		6		
Emulsified shortening	2 oz	60 g		6		
Corn syrup	1.5 oz	45 g		4.5		
Salt	0.1 oz (½ tsp)	2 g		0.25		
Confectioners' sugar	2 lb	1000 g		100		
Vanilla extract	0.25 oz	8 mL		0.75		
Total weight:	2 lb 9 oz	1300 g		129 %		
VARIATION						
QUICK CHOCOLATE FUDGE ICING						
Omit the butter in the basic recipe. After step 3, blend in 6 oz (188 g) melted unsweetened chocolate. Thin the icing with hot water, as needed.						

QUICK WHITE FUDGE ICING II

Ingredients	U.S.		Metric	Fondant at 100%	PROCEDURE
				%	
Fondant	1 lb	4 oz	500 g	100	<ol style="list-style-type: none"> 1. Warm the fondant to 95°F (35°C). 2. Combine the fondant, corn syrup, butter, shortening, and salt in the bowl of a mixer. Blend with the paddle attachment until smooth. 3. Blend in the desired flavoring (see below). 4. Thin to spreading consistency with appropriate liquid (see below). <p>FLAVORING VARIATIONS</p> <p>Add desired flavoring to taste, such as vanilla, almond, maple, lemon, or orange (extract, emulsion, or grated zest), or instant coffee dissolved in water. Crushed fruit, such as pineapple, strawberries, or ground maraschino cherries, may be used.</p> <p>For <i>chocolate icing</i>, add 6 oz (188 g) melted unsweetened chocolate.</p> <p>LIQUIDS FOR ADJUSTING CONSISTENCY</p> <p>With fruit flavorings such as orange or lemon, use lemon juice and/or orange juice. With other flavors, use simple syrup or evaporated milk.</p>
Corn syrup	2	oz	50 mL	10	
Butter, softened	2	oz	50 g	10	
Emulsified shortening	3	oz	75 g	15	
Salt	0.12	oz	3 g	0.6	
Flavoring (see procedure)					
Liquid, to thin (see procedure)					
Total weight:	1 lb 11 oz	or more	678 g	135 %	
		or more	or more	or more	

Flat Icings

Flat icings, also called *water icings*, are simply mixtures of confectioners' sugar and water, sometimes with corn syrup and flavoring added. They are used mostly for coffee cakes, Danish pastry, and sweet rolls.

Flat icings are warmed to 100°F (38°C) for application and are handled like fondant.

FLAT ICING

For large-quantity measurements, see page 737.

Ingredients	U.S.		Metric	Sugar at 100%	PROCEDURE
				%	
Confectioners' sugar	1 lb		500 g	100	<ol style="list-style-type: none"> 1. Mix all ingredients together until smooth. 2. To use, place the desired amount in a double boiler. Warm to 100°F (38°C) and then apply to the product to be iced.
Water, hot	3	oz	90 mL	19	
Corn syrup	1	oz	30 g	6	
Vanilla extract	0.12	oz (¾ tsp)	4 g	0.8	
Total weight:	1 lb 4 oz		630 g	125 %	

Royal Icing

Royal icing, also called *decorating* or *decorator's icing*, is similar to flat icings except it is much thicker and made with egg whites, which make it hard and brittle when dry. It is used almost exclusively for decorative work. Pure white royal icing is most often used, but it may also be

colored as desired. Because it consists mostly of confectioners' sugar, it is sweet but has little taste.

Royal icing dries easily and quickly, which makes it useful for fine decorations; but it also requires special handling and storage. Cover it tightly whenever it is not in use. For even greater protection from drying, place a clean, damp towel on the surface of the icing, and then cover the container tightly with plastic film. If any icing dries or crusts on the sides of the container during storage, remove the dried sections carefully, so that it does not fall back into the moist icing. Dried particles can clog the tips of paper cones and writing tubes.

Using a paper cone or, even better, a pastry bag fitted with a writing tip (a pastry tip with a small, round opening), royal icing can be piped into designs onto parchment or plastic and allowed to dry. They can then be lifted off carefully and stored in airtight containers for later use. See pages 440–442 for a discussion of using the paper cone.

A second use for royal icing is called *string work*, in which delicate strands or filaments of icing are suspended between two attachment points, as illustrated in the decoration of the pastillage showpiece on page 663. This technique is also used on some styles of wedding cakes. To produce string work, touch the tip of the paper cone to the first attachment point, then pull the bag away while squeezing the cone with constant pressure. Allow the loop to drop to the desired length, then touch the tip to the second attachment point.

A third use of royal icing is *flooding* outlined areas of a design with colored icing. This technique requires much thinner icing than that used for string work. Thin the icing with water until a teaspoonful dropped into the bowl of icing flattens to a smooth surface in about 10 seconds. The first step in flooding is to draw an outline using medium-stiff royal icing, either white or colored, as desired. Pipe the outline on the desired surface, such as a sheet of acetate. Allow the outline to dry at least until the surface of the icing is firm. Using a pastry bag with a small (No. 2) plain tip, pipe thinned icing, colored as desired, in a line next to but not touching the inside of the dried outline. The icing should be thin enough to flow up to the outline. Continue to pipe along the inside edge of the icing until the area is filled with a smooth layer of icing. When dry, the design can be lifted off and placed on the surface of a cake.

As you can see, the correct consistency or thickness of royal icing depends on its use. Piped designs and string work require fairly thick icing, while flood work requires a thinner product. For this reason, many pastry chefs do not use a recipe for royal icing but prepare small batches as needed, using the Procedure for Preparing Royal Icing, below. For those who prefer working with a recipe, one is provided.

PROCEDURE: Preparing Royal Icing

1. Place desired amount of confectioners' sugar in a mixing bowl. Add a small quantity of cream of tartar (for whiteness), about $\frac{1}{8}$ tsp per pound of sugar (0.6 g per kilogram).
2. Beat in egg whites (pasteurized), a little at a time, until the sugar forms a smooth paste. You will need 2 to 3 oz egg whites per pound of sugar (125 g per kilogram).
3. Keep unused icing covered with a damp cloth or plastic film at all times to prevent hardening.

ROYAL ICING

Ingredients	U.S.	Metric	PROCEDURE
Confectioners' sugar	1 lb	500 g	
Cream of tartar	$\frac{1}{8}$ tsp	0.3 g (0.5 mL)	
Egg whites, pasteurized (see Note)	3 oz	95 g	
Total weight:	1 lb 3 oz	595 g	
Note: Vary the quantity of egg whites depending on the consistency desired.			

Glazes

Glazes are thin, glossy, transparent coatings that give a shine to baked products and help prevent drying.

The simplest glaze is a sugar syrup or diluted corn syrup brushed while hot onto coffee cakes or Danish pastries (see p. 197 for recipe). Syrup glazes may also contain gelatin or waxy maize starch.

Fruit glazes for pastries, the most popular of which are apricot and red currant, are available commercially prepared. They are melted, thinned with a little water, syrup, or liquor, and brushed on while hot. Fruit glazes may also be made by melting apricot or other preserves and forcing them through a strainer. It helps to add melted, strained preserves to commercial glazes because these products usually have little flavor.

The glaze recipes included in this chapter are of two types: chocolate and gelatin-based. Chocolate glazes are usually melted chocolate containing additional fats or liquids, or both. They are applied warm and set up to form a thin, shiny coating. Gelatin-based glazes, which include many fruit glazes, are usually applied only to the tops of cakes and charlottes made in ring molds. There are several recipes in this chapter, and Chapters 18 and 20 both contain examples of products finished with gelatin-based glazes.

CHOCOLATE GLAÇAGE OR SACHER GLAZE

Ingredients	U.S.	Metric	Chocolate at 100%	PROCEDURE
			%	
Heavy cream	6 oz	150 g	100	<ol style="list-style-type: none"> 1. Prepare a ganache (pp. 271–272) with the cream and chocolate: Heat the cream to boiling and pour over the finely chopped chocolate. Stir until the chocolate is melted and the mixture is uniformly blended. 2. Add the butter and stir to mix in. Use as soon as possible.
Semisweet or bittersweet chocolate, chopped	6 oz	150 g	100	
Butter	2 oz	50 g	33	
Total weight:	14 oz	350 g	233%	

GANACHE ICING (GANACHE À GLACER)

Ingredients	U.S.	Metric	Chocolate at 100%	PROCEDURE
			%	
Heavy cream	10 oz	250 g	100	<ol style="list-style-type: none"> 1. Heat the cream, sugar, and glucose to the boiling point. Remove from the heat. 2. Finely chop the chocolate and place in a bowl. 3. Pour the hot cream over the chocolate. Stir until the chocolate is melted and well blended with the cream. 4. Allow to cool slightly before use. This makes a thin, shiny coating when poured over cakes and charlottes.
Sugar	2 oz	50 g	20	
Glucose	2 oz	50 g	20	
Semisweet or bittersweet chocolate couverture	10 oz	250 g	100	
Total weight:	1 lb 8 oz	600 g	240%	

OPERA GLAZE

For large-quantity measurements, see page 737.

Ingredients	U.S.	Metric	PROCEDURE
Coating chocolate (see p. 88)	8 oz	250 g	
Semisweet or bittersweet chocolate couverture	3.5 oz	100 g	
Peanut oil	1.33 oz	40 g	
Total weight:	12 oz	390 g	

VARIATION		
If couverture is used alone instead of part coating chocolate and part couverture, increase the quantity of oil so the icing has the proper texture and can be cut easily with a cake knife.		
<i>For large-quantity measurements, see page 737.</i>		

Ingredients	U.S.	Metric
Dark chocolate couverture	11.5 oz	350 g
Peanut oil	2 oz	60 g

COCOA JELLY

For large-quantity measurements, see page 737.

Ingredients	U.S.	Metric	Fondant at 100% %	PROCEDURE
Water	4 oz	100 g	67	
Fondant	6 oz	150 g	100	
Glucose	1 oz	25 g	17	
Gelatin	0.25 oz	7 g	4.7	<ol style="list-style-type: none"> Combine the water, fondant, and glucose. Bring to a boil and skim if necessary. Soften the gelatin in cold water (see pp. 83–84). Add the gelatin and cocoa powder to the hot fondant mixture. Mix quickly and strain through a chinois or fine strainer. This mixture is ready to use once the temperature has dropped to 95°F (35°C).
Cocoa powder	1.2 oz (6 tbsp)	30 g	20.8	
Total weight:	12 oz	312 g	208 %	

FRUIT GLAÇAGE

Ingredients	U.S.	Metric	PROCEDURE
Gelatin	0.5 oz	12 g	
Sugar	3 oz	90 g	
Water	2 oz	60 g	
Glucose	1 oz	30 g	
Fruit purée	5 oz	150 g	
Total weight:	11 oz	342 g	
VARIATIONS			
<p>Two charlottes in this book, Passion Fruit Charlotte (p. 541) and Charlotte au Cassis (p. 541), use fruit glaçage. Passion fruit purée or juice and blackcurrant or cassis purée, respectively, are used to make the glaçage. For other uses, most fruit purées can be used.</p>			

COFFEE MARBLE GLAZE

Yield: about 11 oz (350 g)

For large-quantity measurements, see page 737.

Ingredients	U.S.	Metric	PROCEDURE
Gelatin	0.33 oz	8 g	
Water	8 oz	250 g	
Sugar	1.33 oz	40 g	
Glucose	1.33 oz	40 g	
Vanilla bean, split (see <i>Note</i>)	1	1	
Coffee liqueur	4 tsp	20 g	
Coffee extract	2 tsp	10 g	
<p>NOTE: If vanilla beans are not available, add ½ tsp vanilla extract.</p>			

Rolled Coatings

The three commonly used rolled cake coatings are rolled fondant, marzipan, and modeling chocolate. Rather than being applied by spreading or pouring like the other products discussed in this chapter, these are rolled into thin sheets, using a rolling pin, and draped over the cake to cover it. To ensure the coating adheres to the cake, the cake is first brushed with apricot glaze (p. 198) or a similar product, or iced with a thin layer of buttercream before the rolled coating is applied.

Marzipan is a paste made of ground almonds and sugar. Preparation and use of marzipan is discussed in Chapter 25.

Rolled fondant is a doughlike product consisting primarily of confectioner's sugar combined with small quantities of glucose, water, gelatin, and other ingredients to give it the proper

consistency. It is firm and stiff enough to be kneaded, and pliable enough to be rolled out in thin sheets. Like poured fondant, it is almost always purchased ready-prepared.

Modeling chocolate is a stiff paste made of melted chocolate and corn syrup. It is discussed in Chapter 24.

Guidelines for applying rolled coatings are discussed in Chapter 18 (pp. 455–456).



KEY POINTS TO REVIEW

- What are the eight basic types of icings and cake coatings?
- What is the procedure for using fondant?
- What are the basic types of buttercream? Describe how they are made.
- What are foam icings?
- How is royal icing made? What is it used for?

ASSEMBLING AND ICING SIMPLE CAKES

THIS SECTION DEALS with simple American-style cakes. Typical examples of this type are cupcakes, sheet cakes, and layer cakes made of two or three high-ratio or butter-cake layers. These are popular items in bakeshops and are standard desserts in many food service operations. They may be iced but otherwise undecorated, or they may be given some decorative touches.

After mastering the basic techniques in this section, you may want to proceed to the next chapter, where more complex cakes are discussed.

Planning the Cake

Most cakes have up to four components:

- Cake
- Icing
- Filling
- Décor

The simplest cakes have only the first two of these components: cake and icing. For example, the simplest sheet cake consists of only a single layer of cake topped by a single layer of icing. Simple layer cakes have two or three layers of cake, with icing between the layers and the same icing on the top and sides.

In a slightly more complex cake, the filling between the layers may be different from the icing on the outside of the cake.

Finally, a cake may be decorated with additional elements as décor, such as fruit and nuts.

When planning a cake, a pastry chef must consider the characteristics of each of these four components in order to produce an appealing and attractive cake. In particular, the chef should take into account the following characteristics:

- Flavor
- Color
- Texture
- Shape

Cake layers, icings, and fillings come in an endless variety of flavors, colors, and textures. The fourth characteristic, shape, applies primarily to the cake layers (round, rectangular, novelty cutout) and to the décor elements.

When matching flavors and textures of cake, icing, and filling, select combinations that complement each other (such as chocolate icing and chocolate cake) or that make a pleasing contrast (such as raspberry filling in chocolate cake).

Selection of Icing

The flavor, texture, and color of the icing must be compatible with the cake. In general, use heavy frostings with heavy cakes and light frostings with light cakes. For example, ice angel food cakes with a simple flat icing, fondant, or a light, fluffy, boiled icing. High-ratio cakes go well with buttercreams and fudge-type icings. Sponge layer cakes are often combined with fruits or fruit fillings, light French or Italian buttercreams, whipped cream, or flavored fondants.

Because heavier icings are usually richer in texture and more intense in flavor, they are applied in thinner layers than lighter icings. The icing should not overpower or overwhelm the cake.

Use the best-quality flavorings, and use them sparingly. The flavor of the frosting should not be stronger than that of the cake. Fudge-type icings may be flavored most strongly, as long as the flavor is of good quality.

Use color sparingly. Light, pastel shades are more appetizing than strong colors. Paste colors give the best results. To use either paste or liquid colors, mix a little color with a small portion of the icing, then use this icing to color the rest.

Selection of Décor

Elements of cake decoration fall into two general categories: piped icing decoration and additional décor items. Both these categories serve several functions, adding eye appeal as well as flavor and textural interest. All of these should be taken into consideration when planning cakes. Flavor, color, texture, and shape of décor should be appropriate to the cake.

The list of cake décor items is nearly limitless. Popular categories of décor include fruits, nuts, crisp meringue, chocolate décor (see Chapter 24); pastillage, pulled sugar flowers and other items (Chapters 25 and 26); and candies and confections, either made in-house or commercially made.

Sheet Cakes

Sheet cakes are ideal for volume service because they require little labor to bake, ice, and decorate, and they keep well as long as they remain uncut.

For special occasions, sheet cakes are sometimes decorated as a single unit with a design or picture in colored icing, and a “Happy Special Occasion” message. It is more common, however, to ice them for individual service, as in the Procedure for Icing Sheet Cakes on page 437.

Cupcakes

There are three main methods for icing cupcakes. The first of these, dipping, is used for soft icings. The other methods are used when the icing is too stiff for dipping.

1. Dip the tops of the cupcakes in the icing. Do not dip them too deeply; only the tops should touch the icing.
 - If the icing is reasonably stiff, not flowing, twist the cakes slightly and pull them out quickly in one smooth motion.
 - If the icing is flowing (such as flat icing or fondant), pull the cakes straight out of the icing. Hold them sideways for a moment so the icing runs to one edge. Then turn them upright and wipe the icing from the edge of the cakes with your finger. Do not let icing run down the sides.
2. Spread the icing with a spatula. Take enough icing for one cake on the tip of a bowl knife and cover the top of the cake in a single smooth, neat motion, twisting the cake in one hand. Practice is necessary to develop speed and efficiency.
3. With a pastry bag fitted with a star or plain tube, apply a swirl of icing to each cake. This is perhaps the most popular method for modern cupcakes. It makes it possible to apply a generous quantity of icing to the cupcake—a style favored by consumers.

Before the icing dries, cupcakes may be decorated with glazed fruit, coconut, nuts, colored sugar, chocolate sprinkles, and so on.

Layer Cakes

A basic method for assembling and icing simple layer cakes is explained in detail in the Procedure for Assembling Simple Layer Cakes, which follows. This is the simplest and most direct way of icing a layer cake. In addition, two other icing techniques should be mentioned here: applying a thin masking layer of icing and applying glaze.

Applying a Masking Layer

As an alternative to applying the finishing directly to the cake, it is often useful to add an intermediate step. Apply a thin coating of icing to the cake, using the technique given in the basic procedure but making only a thin layer. This optional step has three advantages.

1. The masking layer locks in any loose crumbs that might otherwise get mixed with the final icing and mar its appearance. The finish coat of icing is then easier to apply.
2. The masking layer protects from drying when longer storage is needed. A pastry chef might want to mask a number of cakes and then store them for later icing and decoration. This enables a more flexible production schedule.
3. The masking layer can be used to even out any irregularities in the cake. For example, if the top layer is domed in the center, the masking layer can be used to level the top so that it is flat. The masked cake should have perfectly smooth, even sides and a smooth, level top.

After applying the masking layer, refrigerate the cake long enough for the surface to become firm before applying the final coat of icing.

PROCEDURE: Assembling Simple Layer Cakes

This is the basic procedure for assembling popular American-style layer cakes made with high-fat (that is, creaming method, two-stage, and one-stage method) batters. Layered sponge cakes are assembled slightly differently, as shown on page 451.

1. Assemble all tools and equipment and have them ready.
2. Have all ingredients prepared and at the proper temperature. Cool cake layers completely before assembling and icing. Icings and fillings should be spreadable and at the correct temperature.
3. Trim cake layers, if necessary. Remove any ragged edges. Slightly rounded tops are easily covered by icing, but excessively large bumps may have to be cut off.
If desired, split layers in half horizontally. This makes the cake higher and increases the proportion of filling to cake (see p. 451).
4. Brush all crumbs from cakes. Loose crumbs make icing difficult.
5. Place the bottom layer upside down (to give a flat surface for the filling) on a cardboard cake circle of the same diameter. Place the cake in the center of a cake turntable. If a cake circle or turntable is not available, place the cake on a serving plate; slip sheets of wax paper or parchment under the edges of the cake to keep the plate clean.
6. Spread filling on the bottom layer, out to the edges. If the filling is different from the outside frosting, be

careful not to spread the filling over the edges. One way to avoid spilling the filling over the edge is to pipe a row of the icing used for the cake sides around the edge of the cake layer to form a barrier to hold the filling inside.

Use the proper amount of filling. If applied too heavily, filling will ooze out when top layer is put in place.

7. Place the top layer on the bottom layer, right side up.
8. Ice the cake:
 - a. If a thin or light icing is used, pour or spread the icing onto the center of the cake. Then spread it to the edges and down the sides with a spatula.
 - b. If a heavy icing is used, it may be necessary to spread the sides first, then place a good quantity of icing in the center of the top and push it to the edges with the spatula.

Pushing the icing, rather than pulling or dragging it with the spatula, prevents pulling up crumbs and getting them mixed with the icing.

Use enough icing to cover the entire cake generously, but not excessively, with an even layer.

Smooth the icing with the spatula, or leave it textured or swirled, as desired.

An alternative way to apply icing is to pipe it on using an oversize basketweave tip, sometimes called a *speed icer*, in a pastry bag.

The finished, iced cake should have a perfectly level top and perfectly straight, even sides.

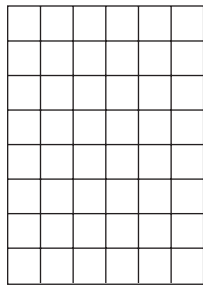
Applying Glaze

Unlike regular spreadable icings such as buttercream, glazes (p. 431) are applied by pouring them over the cake. A masking coat of icing is always applied if the cake is to be finished with a glaze rather than a spread icing. A detailed Procedure for Applying Glaze can be found on page 452.

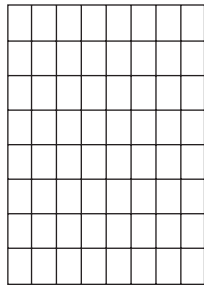
PROCEDURE: Icing Sheet Cakes

1. Turn out the cake onto a cake board or the bottom of another sheet pan or tray, as described on page 393. Cool the cake thoroughly.
2. Trim the edges evenly with a serrated knife.
3. Brush all crumbs from the cake.
4. Place a quantity of icing in the center of the cake and, with a spatula, push the icing to the edges. Smooth the top with the spatula, giving the entire cake an even layer of icing.
5. With a long knife or spatula, mark the entire cake into portions by pressing the back of the knife lightly into the icing. Do not cut the cake.
6. Using a paper cone or pastry bag fitted with a star tube, pipe a rosette or swirl onto the center of each marked-off portion. (If you prefer, select another kind of decoration.) Whatever decorations you use, keep them simple, and make them the same for every portion.
7. Cut portions as close as possible to service time to keep the cake from drying.

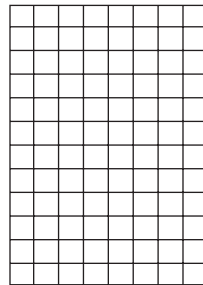
Cake-cutting guides for sheet cakes and round layer cakes. For half-size sheets (13 x 18 in./33 x 46 cm), simply halve the diagrams for full-size sheet cakes below.



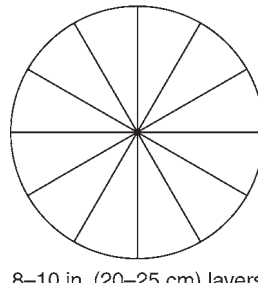
6 x 8 = 48 portions



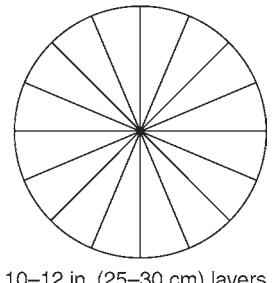
8 x 8 = 64 portions



8 x 12 = 96 portions



8–10 in. (20–25 cm) layers
12 portions



10–12 in. (25–30 cm) layers
16 portions

Specialty Items

A number of popular cake items don't fit in the categories just described—layer cake, sheet cake, or cupcake. We discuss those here.

Boston Cream Pie

Boston cream pie is not a pie at all but a simple layer cake. Bake sponge cake in standard layer pans or pie tins. When cool, split each cake into two layers. Fill with Pastry Cream (p. 267) and ice the tops with chocolate fondant, or sprinkle with confectioners' sugar.

Cake Rolls

Besides jelly rolls (p. 407), sponge rolls can be made with a variety of fillings, such as whipped cream, vanilla or chocolate boiled icing, marshmallow icing, or buttercream. Cake rolls are discussed in more detail in the section on European-style cakes (p. 476).

Ice Cream Cakes

Ice cream may be used in place of icing to fill layer cakes or cake rolls. If the bakeshop is cool, or if you have a walk-in refrigerator to work in, you can spread slightly softened ice cream on the layers or inside the rolls. Round cakes are best assembled inside cake rings lined with acetate (p. 52). If the temperature is warm, however, it is better to cut slices of hard-frozen ice cream to fill the cakes. Work quickly; do not allow the ice cream to melt and drip out of the cake.

As soon as the layers are stacked or the rolls are tightly rolled, return them to the freezer until they are firm. Then quickly frost the tops and sides with whipped cream. Store in the freezer until needed.

French Pastry

In parts of North America, the term *French pastry* is used to refer to a wide range of decorated pastry and cake products usually made in single-portion pieces. The simplest of the cake-based varieties are tiny decorated layer cakes made in a variety of shapes. They are assembled as follows:

1. Using thin ($\frac{1}{2}$ – $\frac{3}{4}$ -in./1–2-cm) sheet cakes, stack two or three sheets with filling or icing between them. The filled cake layers together should be about 1½–2 in. (4–5 cm) thick.
Buttercream is the most popular filling. Fruit jams and fudge icings may also be used.
2. Press the layers together firmly and chill or freeze.
3. Using a sharp knife dipped in hot water before each cut, cut the sheet into desired shapes, such as squares, rectangles, or triangles. Circles may be cut out using large cutters. Pieces should be the size of a single portion.
4. Ice the sides and top of each piece with buttercream or fondant. After icing, sides may be coated with chopped nuts, coconut, chocolate sprinkles, and so on.
5. Decorate the tops neatly.

French pastries are discussed further in the section on European-style cakes (pp. 478–479).



KEY POINTS TO REVIEW

- What are the four possible components of a cake?
- What are the steps in the procedure for assembling and icing simple layer cakes?
- How are sheet cakes and cupcakes iced?

BASIC DECORATING TECHNIQUES

A NUMBER OF essential decorating techniques are discussed in this section. Of these, perhaps the most difficult to learn are the ones using the pastry bag and paper cone. Others take less practice to master, but do require a steady hand, neatness, and a strong sense of symmetry.

Tools

You will need the following tools for assembling and decorating cakes:



Palette knife.

Palette knife or steel spatula. A spatula with a long, flexible blade for spreading and smoothing icings and fillings.

Offset palette knife. A palette knife with an angled blade for spreading batters and creams inside pans.



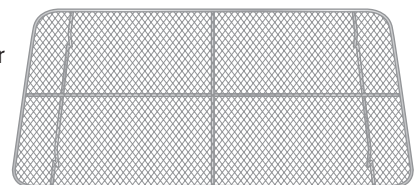
Offset palette knife.



Serrated knife.

Serrated knife. A scalloped-edge knife for cutting cakes and splitting cake layers horizontally into thinner layers.

Icing screens, or grates. Open-mesh screens for holding cakes being iced with a flow-type icing such as fondant. Excess icing drips off the cake and is collected on a tray under the rack.



Icing screen.

Turntable. A pedestal with a flat, rotating top, to simplify the process of icing cakes.

Icing comb. A plastic triangle with toothed or serrated edges used for applying a grooved or ridged pattern to the sides of iced cakes. The edge of the comb is held stationary in a vertical position against one side of the cake while the turntable is rotated.

Plastic or steel scraper. A tool with a flat edge for making the icing on the sides of cake perfectly smooth. The technique is the same as that for working with the icing comb (see above).

Pastry brushes. Used to remove crumbs from a cake, apply dessert syrups to sponge cake layers, and glaze the surfaces of cakes with apricot glaze and other coatings.

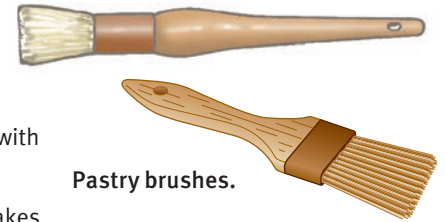
Sugar dredger. Resembling a large metal saltshaker, a dredger is used to dust cakes with confectioners' sugar.

Cake rings or charlotte rings. Stainless steel rings of varying diameters and heights. Cakes are assembled inside these rings when they include soft fillings, such as Bavarian creams and other gelatin-based fillings, that must be held in place while the filling sets. Also used for charlottes (Chapter 20).

Cake cards and doilies. Layer cakes are placed on cardboard circles (same diameter as the cake) when being assembled. Sheet cakes are placed on half- or full-size cardboard cake boards. This makes them easy to ice and to move after icing. For easy, attractive display, place a paper doily 4 inches (10 cm) larger than the cake on a cake card 2 inches (5 cm) larger than the cake. For example, to assemble, ice, and display a 10-inch cake, use a 10-inch circle, a 12-inch circle, and a 14-inch doily.

Parchment paper. For making paper cones.

Pastry bag and tips. For making borders, inscriptions, flowers, and other designs out of icing. The basic tips are described below.

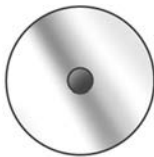


Pastry brushes.



Sugar dredger.

Plain (round) tips: For writing words and drawing lines, beads, dots, and so forth. Also used to pipe sponge batters, creams, and choux paste, and to fill choux pastries and other items.



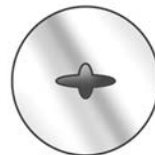
Star tips: For making rosettes, shells, stars, and borders.



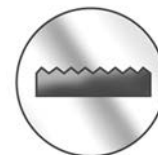
Rose tip: For making flower petals. These tips have a slit-shaped opening that is wider at one end than the other.



Leaf tips: For making leaves.



Ribbon or basketweave tips: For making smooth or ridged stripes or ribbons. These have a slit opening that is ridged on one side.



St-Honoré tip: For filling gâteaux St-Honoré (p. 364). This tip has a round opening with a V-shaped slit on one side.



Many other specialized tips are used for unusual shapes. However, the plain and star tips are by far the most important. The beginner is advised to concentrate on these at first. They make a wide variety of decorations. With the exception of roses and other flowers, the majority of cake decorations are made using the plain and star tips.

The usual way of using a pastry tip is simply to fit it inside the pastry bag. When you need to use more than one tip with the same icing, you must use a separate bag for each one or empty

the bag to change the tip. However, special *couplers* are available that allow you to attach the tip to the outside of the bag. It is then a simple matter to change tips even when the pastry bag is full of icing.

Using the Paper Cone

The *paper cone* is widely used in decorative work. It is inexpensive, easy to make, and can simply be discarded after use. It is especially valuable if you are working with different colors; simply make a separate cone for each color icing.

Although it is possible to fit metal decorating tubes inside paper cones, the cones are usually used without metal tubes for writing inscriptions and for making line drawings and patterns. In other words, they are used the same way you would use a pastry bag fitted with a small plain tube. Because paper cones can be made rather small and are easy to control, pastry chefs generally prefer them to pastry bags when they are doing delicate work. For the most delicate work, a special type of plastic or cellophane is available that makes finer lines than paper because a smaller, cleaner opening can be cut on the tip.

Two factors are important to be successful using both the paper cone and the pastry bag.

- 1. Consistency of the icing.** Icing must be neither too thick nor too thin. With the paper cone or the writing tube, the icing must be thin enough to flow freely from the opening, but not too thin to form a solid thread. Stiff icing is difficult to force through the opening and tends to break off. For flowers and large decorations, however, the icing must be stiffer so the items hold their shapes.
- 2. Pressure on the cone or bag.** Pressure control is necessary to make neat, precise decorations. As described below, sometimes you must keep the pressure steady and even. For other types of decorations, such as shell borders, you must vary the pressure from heavy to light, and then stop the pressure at the right moment. Learning to control the pressure with which you squeeze the decorator's cone or pastry bag takes a lot of practice.

Two methods are used to make decorations: the *drop-string method* and the *contact method*.

The drop-string method, also known as the *falling method*, is so called because the cone is held above the surface and the icing is allowed to fall or drop from the tip of the cone onto the surface being decorated. This method is used to make lines of even thickness on horizontal surfaces. Much, if not most, paper cone work is done this way, generally with royal icing, fondant, chocolate fondant, melted chocolate, or piping chocolate (p. 645).

To use the drop-string method, begin by holding the cone vertically. Touch the tip of the cone to the surface to attach the icing to the point where you want the line to start. Then, as you begin to squeeze the cone, lift the tip of the cone from the surface and start your line. Hold the cone about 1 inch (2.5 cm) from the surface as you trace your pattern. The thread of icing will be suspended in air between the tip of the cone and the surface being decorated. Keep the pressure light and constant. To finish a line, lower the tip of the cone and touch the surface at the point where you want the line to end. At the same time, stop squeezing the cone.

The drop-string method allows you to make fine, delicate lines and patterns while keeping the thickness of the line perfectly even. Make sure the opening in the tip of the cone is cut quite small. At first, it may seem difficult to control the line while holding the cone an inch above the surface, but with practice, you will be able to make precise patterns.

The contact method is used in two situations: (1) when you want to vary the thickness of the line, and (2) when you want to decorate a vertical surface, such as the side of a cake.

For the contact method, begin by holding the cone as you would a pen, with the tip in contact with the surface and at an angle of about 30 to 45 degrees. Draw lines as though you were drawing on paper with a pen. Control the thickness of the line by adjusting the pressure of your thumb. Squeezing harder makes a thicker line.

Normally, it is best to work with the drop-string method first, until you are able to make simple lines and patterns easily. Then, when you move to the contact method, you can concentrate on controlling pressure. In addition to royal icing, fondant, and chocolate, buttercream is also used for decorating with the contact method.

Note: The instructions that follow for using the cone and pastry bag are written for right-handed people. If you are left-handed, simply reverse the hands in the instructions.

PROCEDURE: Decorating with a Paper Cone

1. Make the paper cone, as shown.
2. Fill the cone about half full with icing. If the cone is too full, it is harder to squeeze, and icing is likely to come out the top.
3. Fold down the top of the cone to close the open end.
4. With scissors, cut off a very small piece of the tip of the cone. (Be sure to discard the tiny paper tip immediately, or it may get mixed in with the icing.) It is better to make the opening too small than too large. Squeeze out a little of the icing to test the cone. If necessary, cut off a little more of the tip to enlarge the opening.
5. Hold the top end of the cone between your thumb and the first two fingers of your right hand. Position your fingers so they can hold the folded end closed and at the same time apply pressure to squeeze the icing from the cone.
6. Do not squeeze the cone with your left hand. Instead, lightly hold the index finger of your left hand against the thumb of your right hand or against the cone, in order to steady your right hand and help guide it.
7. Use either the contact method or the drop-string method (discussed on p. 440) to create different types of decorations and inscriptions.



Make a single cone out of a small triangle of parchment paper. Hold the cone with the fingertip in the center of the long side and curl one side.



Curl the other side around to complete the cone.



Fold over the peak at the open end of the cone to secure it.



For a sturdier double cone, cut a longer triangle. Start as for a single cone.



Twist the long end around twice to complete the cone.

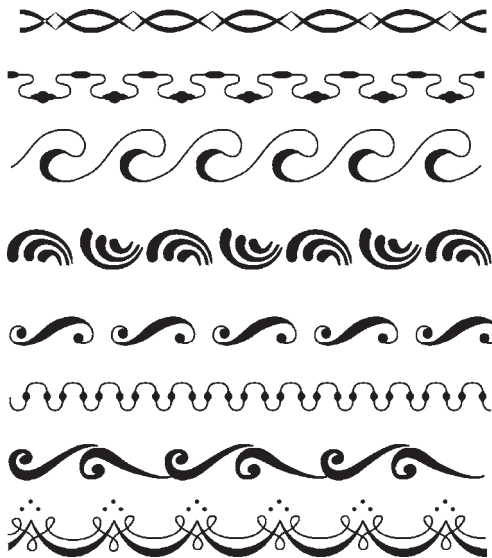


Complete single and double cones.

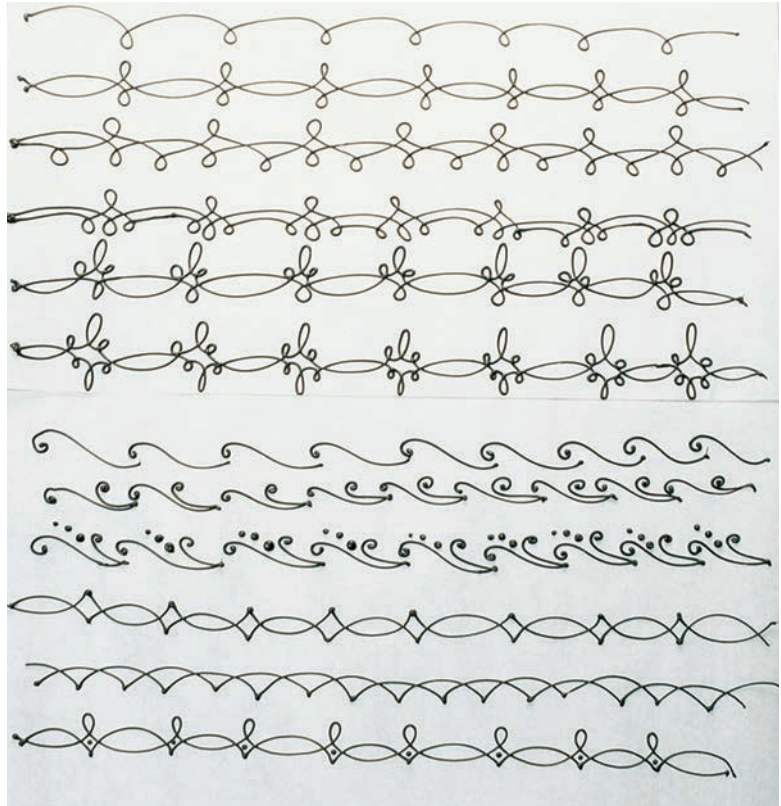
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Note how the tip of the cone is held above the surface, allowing the icing to drop into place.



Paper-cone designs made by the contact method.



An assortment of borders made with the paper cone.

Using the Pastry Bag

An advantage of the pastry bag is that it makes it easy to use many different metal tips to create a wide variety of designs. Also, a pastry bag holds more icing than a paper cone. This is important when you are decorating with whipped cream or meringue. Buttercream flowers, shell borders, and many other decorations are made with the pastry bag.

Most pastry bags are made of one of the following four materials:

- **Disposable plastic bags** are designed to be thrown away after use. As a result, they are hygienic.
- **Reusable plastic bags** are made of a soft, reinforced plastic, making them durable and easy to use. Also, they do not easily absorb odors and flavors. However, they must be thoroughly cleaned after use.
- **Nylon bags** are soft and flexible. They, too, must be cleaned thoroughly after use, but because they are made of a synthetic fabric, they are easier to clean than cotton.
- **Cotton** is the traditional material for pastry bags, but because it is highly absorbent, bags made with cotton are harder to clean. It is important to wash them well and sterilize them after each use.

PROCEDURE: Filling and Using a Pastry Bag

1. Fit the desired metal tip into the pastry bag.
2. If the filling or icing is thin, twist the bag just above the tip and force it into the tip. This prevents the filling from running out of the bag while the bag is being filled.



3. Turn down the top of the bag into a sort of collar. Slip your hand under this collar and hold the top open with your thumb and forefinger.



4. Fill the bag half to three-quarters full. Remember that stiff icings are relatively hard to force from the bag, so fill the bag less when you are working with these. With meringue and whipped cream, the bag can be fuller.
5. Turn up the top of the bag again. Gather the loose top together and hold it shut with the thumb and forefinger of your right hand.
6. To force out the icing or cream, squeeze the top of the bag in the palm of your right hand.
7. Use the fingers of your left hand to lightly guide the tip of the bag, *not to squeeze the bottom of the bag*. The left hand is sometimes used to hold the item being filled or decorated.



Piping basic shells and shell borders.



Simple bulbs, bead borders, and rosettes.



Scrolls and borders made with a star tip.



Additional scrolls and borders made with a star tip; plus, at the bottom, an example of piping using a St-Honoré tip.

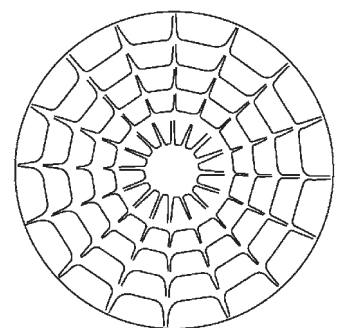
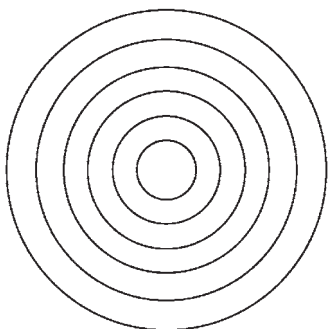
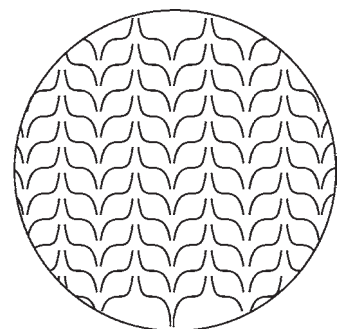
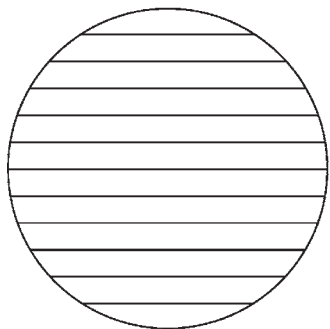
Other Decorating Techniques

There are many dozens of techniques for decorating cakes. In this section we describe some of the simpler, more commonly used ones. In the next chapter and in the accompanying illustrations, you will see examples of these and other techniques.

A popular way of organizing the decoration of a round cake is to divide the cake into portions by marking the icing on top with the back of a long knife: First mark the cake in quarters. Then divide each quarter in half, thirds, or fourths, depending on the size of the cake and the number of pieces desired. Decorate the cake in a repetitive pattern so each slice has the same decorations. For example, you might decorate a Black Forest Torte (p. 458) with a rosette of cream at the wide end of each wedge, then place a cherry on each rosette.

The advantages of marking the cake into wedges are that it enables portion control and ensures that each piece is decorated equally. Thus, this approach is often used in restaurants and in retail shops that sell cakes by the slice. Each slice, when cut and served, retains an attractive decoration.

Examples of marbled icing patterns.



Masking the Sides

This technique (not to be confused with applying a masking layer of icing, as explained on page 436) is used to apply a coating of chopped or sliced nuts, coconut, chocolate sprinkles, chocolate shavings, cake crumbs, or another material to the sides of the cake.

Hold the freshly iced cake (on a cardboard circle) in your left hand over the tray of nuts or other material. With your right hand, lightly press a handful of the material against the side of the cake, and let the excess fall back onto the tray. Turn the cake slightly and repeat until the coating is complete. You can coat the sides completely or just the bottom edge.

Stenciling

You can add designs to a cake by masking part of the top with paper cutouts or paper doilies and then sprinkling the top of the cake with confectioners' sugar, cocoa, ground nuts, shaved chocolate, cake crumbs, praline powder, or another fine material. Alternatively, spray the top of the cake with a chocolate sprayer, as shown on page 645. Carefully remove the paper pattern to reveal the design. A simple type of stenciling that is effective on chocolate icings is to lay parallel strips of paper on the cake and dust with confectioners' sugar.

Marbling

The *marbling* technique is most frequently used with fondant.

Ice the top of the cake with fondant, then pipe lines or spirals in fondant of a contrasting color. Quickly, before the icing sets, draw the back of the knife through the icing to marble it. This is the same technique used to ice napoleons (p. 328). You can make more elaborate marbled icing patterns by piping lines, circles, or spirals of a contrasting color fondant onto an iced cake top, then drawing the back of a knife or spatula across the lines before the icing sets.

Palette Knife Patterns

You can texture icing quickly and easily with a palette knife as soon as the cake is iced. To make a spiral pattern, leave the cake on the turntable and press the rounded end of the blade lightly into the icing at the center of the cake. Slowly turn the turntable and, at the same time, gradually draw the tip of the palette knife to the outer edge of the cake.

If you wish, you can marble this spiral with the edge of the knife the same way you would marble fondant stripes. Other patterns, such as straight, parallel ridges, can be made with the palette knife and then marbled.

Piping Jelly

Piping jelly is a transparent, sweet jelly used for decorating cakes. It is available in various colors and in a clear, colorless form you can color yourself. Piping jelly can be applied directly to a cake with a paper cone. For example, you can add a touch of color to borders by first decorating them with one of the designs on page 442 and then filling in some of the small loops with colored piping jelly.

Another way to use piping jelly is to make jelly transfers. These are colored pictures that are made ahead of time and applied to cakes as needed. Their advantage is that they can be made during slack hours and stored until called for.

PROCEDURE: Making Piping Jelly Transfers

1. Trace the desired drawing onto a sheet of tracing paper; or, if you wish, draw a picture freehand.
2. Turn the drawing over so the tracing is underneath but can be seen through the paper. (You turn the paper over so the pen or pencil marks don't come off with the jelly.)
3. Outline the drawing with brown piping jelly.
4. Fill in the outlines with piping jelly of appropriate colors.
5. Let the jelly dry. This takes 1 day.
6. Turn the transfer over and place it, jelly side down, on the iced cake.
7. Moisten the back of the paper lightly with a brush dipped in water.
8. Let the cake and paper stand a few minutes. Then carefully peel off the paper, leaving the jelly picture on the cake.

Adding Fruits, Nuts, and Other Items

Arranging fruits, nuts, and other items in an attractive pattern is an easy and effective way to decorate a cake while adding to its flavor and appeal to the customer. This technique is especially appropriate for cakes marked off into portions, as described at the beginning of this section. Each portion can be topped with an appropriate item, such as cherries on the Black Forest Torte (p. 458).

Many fresh or juicy fruits should be added as close to service or display time as possible, as they deteriorate quickly. Fruits in juice or syrup should be drained and dried well before applying.

Naturally, you should use items appropriate to the flavor of the cake. For example, you might place candy coffee beans on a mocha cake or mandarin orange segments on an orange-flavored cake.

Here are several examples of items that can be arranged decoratively on cakes:

- Whole strawberries
- Sweet cherries
- Mandarin orange segments
- Pineapple wedges
- Glacéed fruits
- Candied chestnuts
- Pecan halves
- Walnut halves
- Small, crisp meringues
- Chocolates, such as chocolate truffles
- Chocolate curls or other chocolate decorations.
- Small candies (no hard candies, because a customer might break a tooth)
- Marzipan cutouts—cut from colored marzipan (p. 656) rolled out in sheets—and marzipan figures

Decorating Sequence

Although the order in which decorations are placed on the cake depends on the cake and the baker's preferences, many pastry chefs prefer the following sequence:

1. Mask the sides of the cake with nuts, crumbs, or other coatings, either before or after decorating. If the top decorations are delicate and might be damaged if the cake is handled, mask the sides first. However, if you are marbling the top of the cake or using some other technique that disturbs the icing on the sides of the cake, then mask the sides afterward.
2. If the cake is to have an inscription or message, such as a person's name or a holiday or birthday greeting, put this on first.
3. Add borders and paper cone designs.
4. Add flowers, leaves, and similar decorations made with a pastry bag.
5. Add additional items such as fruits, nuts, or candies.



KEY POINTS TO REVIEW

- What basic tools are needed for decorating cakes?
- What is the procedure for decorating with a paper cone?
- What is the procedure for filling and using a pastry bag?

TERMS FOR REVIEW

fondant	string work	Boston cream pie	drop-string method
buttercream	flooding	French pastry	contact method
boiled icing	glaze	icing screen	marbling (icing)
marshmallow icing	marzipan	turntable	piping jelly
flat icing	rolled fondant	icing comb	
royal icing	modeling chocolate	paper cone	



QUESTIONS FOR DISCUSSION

1. What is the most important rule to follow when using fondant? Why?
2. What are the advantages and disadvantages of using butter and using shortening in buttercream icings?
3. What are the steps for assembling and icing a two-layer cake?
4. What method would you use to ice cupcakes with fondant? With buttercream?
5. Why is the consistency of the icing important when you are decorating with a paper cone or pastry bag?
6. True or false: If you are right-handed, you should hold the top of the pastry bag shut with your right hand and squeeze the bag with your left hand. Explain your answer.
7. Name four techniques you can use for partially or completely decorating a cake without using a pastry bag or paper cone.



Specialty Cakes, Gâteaux, and Torten

18

AFTER READING THIS CHAPTER, YOU SHOULD BE ABLE TO:

1. Select from a variety of components to plan cakes that have well-balanced flavors and textures.
2. Line charlotte rings or cake rings for specialty cakes.
3. Coat a cake with marzipan or rolled fondant.
4. Assemble a variety of European-style cakes, Swiss rolls, small cakes, and petits fours.



THE TYPICAL AMERICAN layer cake consists of two components: cake layers and icing. Usually made up of two, or sometimes three, fairly thick layers, it is often a high-ratio or creaming-method cake. The iced cake may be 3 or 4 inches (7.5 or 10 cm) tall, or more.

In contrast, the typical European cake may be described as a sponge cake, such as genoise, split into thin layers, moistened with a flavored syrup, filled and iced, and frequently set on a base of baked meringue, japonaise, or short dough. It is sometimes filled with fruit between the layers, and is almost always decorated on top. A European-style cake is usually less than 3 inches (7.5 cm) tall, and has a broad, flat top that serves as an excellent canvas for pastry chefs to display their decorating skills.

These descriptions of American and European cakes are, of course, generalizations, and there are many exceptions to both. Nevertheless, they do provide an overview of the common differences between the two and serve to introduce the subject of European-style cake assembly.

PLANNING AND ASSEMBLING SPECIALTY CAKES

GÂTEAUX AND TORTEN

Two words you will see often in connection with European-style cakes are *gâteau* and *torte*. *Gâteau* is French for “cake” (the plural is *gâteaux*; both singular and plural are pronounced gah-toe). The term is nearly as general as the English word *cake*, as it is used to refer to a wide range of products. For example, Chapter 15 included recipes for *Gâteau Pithiviers* (p. 366), made of puff pastry and almond filling, and *Gâteau St-Honoré* (p. 364), made of short dough and éclair paste and filled with a type of pastry cream. *Gâteaux* may also refer to more conventional layer cakes.

The German word *torte* (plural *torten*) is generally used to describe layer cakes, but it has many definitions, which often contradict each other. According to a British definition, a *torte* is a sponge layer cake marked off into individual wedges that are individually decorated. An entirely different definition says a *torte* is a cake baked from a batter that contains nuts and/or crumbs but little or no flour. Yet there are classic *torten* that fit neither definition.

Rather than try to decide the issue or add to the confusion, we will use the words *torte* and *gâteau* when they are parts of a generally accepted name of a classic dessert, such as *Sachertorte* and *Gâteau St-Honoré*.

AS WE HAVE pointed out several times in this book, much of a pastry cook’s job is assembly work. Starting with basic elements such as creams, fillings, and baked doughs and batters, the pastry cook builds desserts by putting these elements together in different and attractive ways. This is especially true of the construction of European-style cakes.

Although the number of ingredients that may go into a cake is nearly limitless, the most commonly used are those listed in the Basic Cake Components section, next. This list is followed, first, by a general procedure for assembling a basic European-style cake, and then with more specific procedures for making a number of desserts, most of which are popular classics.

Once you are familiar with the general procedure, you should be able to go beyond the examples included here and put together your own cakes. As you do, keep in mind that a cake that has too many flavors is less pleasing than one with fewer flavors that blend well or have a pleasing contrast. Make sure the flavors you choose for the cake layers, fillings, icings, and syrups go well together. Texture, too, is an important consideration. A mixture of creamy, crisp, and cakelike textures is more interesting to the palate than a cake that consists mostly of mousse. Ingredients such as fruits, nuts, nougatine, caramel, chocolate, crisp meringue, and puff pastry add textural interest.

This chapter builds on the skills described in the Chapter 17. If necessary, review the basic cake assembly and decoration techniques laid out on pages 434–445 before continuing with the more specialized techniques in this chapter.

Basic Cake Components

Following are some of the more important types of components pastry chefs use to construct specialty cakes.

Optional bottom layer	Baked short dough circle (p. 318) Baked meringue or japonaise (pp. 345–349)
Optional cake ring linings	(p. 453)
Cake layers	Genoise or other plain sponge (p. 406) Almond sponge or other nut sponge (pp. 406, 411, 412, 414) Chocolate sponge (pp. 406, 412, 414)
Additional specialty layers	Puff paste disks (pp. 322–323) Japonaise or meringue disks (pp. 345–349)
For moistening and flavoring cake layers	Dessert syrup (p. 258)
Fillings	Jam or jelly (especially apricot and raspberry) Buttercream (pp. 422–426) Crème chantilly (p. 261) Ganache (pp. 272–273) Chocolate mousse (p. 273) Pastry cream and variations (pp. 267–270) Bavarian cream (p. 533) Fruits (fresh, poached, or canned)

Icings and coatings

- Buttercream (pp. 422–426)
- Fondant (pp. 420–421, 433)
- Whipped cream (p. 260)
- Marzipan (p. 657)
- Glazes (pp. 431–433)

PROCEDURE: Assembling a Basic Layered Sponge Cake

1. Trim the edges of the cake as necessary.



2. Cut a notch in the edge of the cake so the layers can be lined up again after cutting.



3. Split the cake in half horizontally.



4. Place one half on a cake card and moisten it with a flavored syrup.



5. Applying the filling with a pastry bag is an easy way to get a layer of uniform thickness.



6. Top with the second layer, and mask the top . . .



7. . . . and sides with the desired icing.



8. Smooth the sides with a plastic scraper.



9. With a palette knife, smooth the top. The cake is now ready for glazing, if desired (p. 452), and decorating.



GENERAL PROCEDURE: Assembling European-Style Specialty Cakes

1. Assemble all ingredients and equipment.
2. Place a cake card on a turntable or the work surface. The cake will be assembled on top of the card.
3. Split the sponge cake horizontally into two or three layers, depending on the thickness of the cake. Alternatively, use a sponge baked in a thin layer and cut it to the desired shape and size if necessary.
4. If using a charlotte ring (cake ring), line it as desired (see p. 453).
5. If using a japonaise, meringue, or short-dough base, place it on the cake card. Stick it down with a dab of icing or jam so it doesn't slide off the card. (If you are using a cake ring, place the base inside the ring.) Spread with a thin layer of filling or jam. Raspberry or apricot jam is often used on short-dough bases.
6. Place one sponge layer on top of the base; or, if you are not using a base layer, place the sponge layer directly on the card.
7. Brush the cake layer with dessert syrup. Use enough to moisten the cake well, but not so much that it becomes soggy.
8. If you are using fruit pieces, arrange them either on top of the base or on top of the filling after the next step.
9. Apply a layer of the desired filling. Either spread it on with a palette knife or, to quickly apply an even layer, pipe it on as shown in step 5 the Procedure for Assembling a Basic Layered Sponge Cake.
10. Top with another sponge layer and brush it with syrup.
11. If you are using a third sponge layer, repeat steps 9 and 10.

Note: It is sometimes recommended that the top sponge layer be placed cut side up, as opposed to crust side up. This is especially helpful if a light, translucent icing such as fondant is being used. A dark crust will show through a thin fondant layer and detract from the appearance of the cake.
12. Ice the cake with the desired icing or glaze. If using buttercream or other spreadable icing, you may ice the cake directly or first give it a thin masking coat, as explained on page 436. Note that cakes to be covered with glaze (see the Procedure for Applying Glaze) must first be given a masking coat of icing.
13. Decorate.

PROCEDURE: Applying Glaze

1. Assemble all ingredients and equipment.
2. Apply a masking coat of icing to the top and sides of the cake, as explained on page 436. Be sure that the icing is perfectly smooth and level, as any irregularities will show through the glaze.
3. Refrigerate until the icing is set and firm.
4. Have the glaze at a slightly warm temperature, about 80°F (27°C). If it is too warm, it will melt the icing. If it is too cold, it will not flow and spread freely. Spoon off any bubbles on the surface of the glaze.
5. Set the cake on an icing screen or rack above a sheet pan to catch excess glaze.
6. Pour the glaze over the cake, covering it completely and evenly. Pastry chefs have two different preferred methods to ensure even coating:
 - a. Start by pouring the glaze around the edge of the cake first and letting it run down the sides; then pour glaze onto the center of the cake to finish. If necessary, tilt the cake slightly from side to side to get the glaze to flow evenly.
 - b. Alternatively, start by pouring a generous quantity of glaze over the center of the cake, letting it flow in all directions. With an offset palette knife, quickly draw the glaze toward all sides of the cake so that it covers the sides completely. Sweep the knife off the edges of the cake; do not lift it off the top, as this will leave ridges in the glaze. You must do this quickly before the glaze begins to set.
7. If there are any bubbles in the glaze, remove them by very carefully warming them with a blowtorch. Or, if the glaze is still quite liquid, pop them with a fine skewer.
8. Refrigerate until the glaze is set.

Because there are so many types of specialty cakes, some of which can be quite complex, we introduce the methods for making them in two stages. The first procedure, on page 451, is for assembling a basic layered sponge cake from baked cake layers and icing. Note that this procedure is somewhat different from the one used for high-fat cakes, explained in Chapter 17. The most important difference is the use of flavored syrups.

The second procedure introduces many of the techniques used for some of the more elaborate cakes later in this chapter. Be aware that this is only a general procedure. Some of the same steps appear in both procedures.

Rectangular Cakes or Strips

Most popular cakes can also be made in a rectangular shape or strip about 2½ to 3½ inches (6 to 9 cm) wide and 16 to 18 inches (40 to 46 cm) long (the width of a sheet pan) or any fraction of that length. A cake baked in a standard sheet pan can be cut crosswise into seven pieces of this size.

To produce one cake, cut strips of the desired size from sheet cakes and then layer with fillings as in the basic procedure. Ice the top and sides. Ends may be iced or be left un-iced to show an attractive pattern of cake layers and fillings. Using a sharp serrated knife, trim a thin slice off each end for a more attractive appearance. Wipe the knife clean and dip it in hot water before cutting each slice.

To produce rectangular or strip cakes in quantity, use full cake sheets and layer as in the basic procedure. Cut into strips of the desired width, then ice the top and sides of each strip.

Strip cakes are divided into portions by cutting off rectangular slices about 1½ inches (4 cm) wide. The tops may be marked into portions and decorated in a regular pattern, in the same way that round cakes are often marked into wedges.

Lining Charlotte Rings or Cake Rings

Sometimes a soft filling or mousse, such as Bavarian cream or other gelatin-based filling, is used in a layer cake. In these cases, it is necessary to use a ring mold to hold the filling in place until the cake is chilled enough to set the filling. These ring molds are often called *charlotte rings* because they are used to make charlottes, molded desserts made of Bavarian cream (see Chapter 20). They may also be called *cake rings*.

Using a charlotte ring allows the pastry chef to create a decorative edge for the cake. The cake is finished by applying an icing or glaze only to the top. The decorated sides of the cake are revealed when the ring is removed.

For the neatest results, line the cake ring with a strip of acetate before assembling the cake. This makes it easier to remove the metal ring from the finished cake without marring the sides. Sponge cake, for example, sometimes sticks to the ring if acetate is not used.

Four popular linings for charlotte rings are sponge strips, sliced sponge, chocolate, and fruit.

Sponge Strips

Sponge used to line a ring must be thin (about ¼ inch/0.5 cm) and flexible enough to bend without breaking (see the Procedure for Lining a Ring Mold with a Sponge Strip, p. 454). Sponges made with almond powder are good for this purpose because they stay moist and flexible. Joconde Sponge Cake (p. 409) is especially suitable. Ladyfinger Sponge (p. 411) is another good choice, even though it does not contain nut powder, because it is strong and flexible.

For a decorative edge, Ribbon Sponge (p. 410) is popular. Using colored stencil paste allows the chef to make many different designs for different cakes. In Chapter 20, Passion Fruit Charlotte (p. 541) and L'Exotique (p. 544) are made with ribbon sponge. Caramelized sponge also makes an attractive lining and is suitable for cakes made with caramelized fruit or other caramel flavor, such as Bananier (p. 475). The Procedure for Caramelizing Sponge (p. 454) details how to do this.

PROCEDURE: Lining a Ring Mold with a Sponge Strip

1. Use the ring as a guide to measure the width and length of the strip of sponge to be cut (a). The strip may be cut slightly narrower than the ring so some of the filling will show above it. It should be slightly longer than the circumference of the ring so it will fit snugly.



2. Brush the sponge with dessert syrup before placing it in the mold, to prevent discoloration by juices seeping through from the filling.
3. Place the ring on a cake card and fit the strip of sponge into the ring (b).



4. Trim the end of the strip with a small knife (c).



PROCEDURE: Caramelizing Sponge

1. Cut a strip of joconde sponge to the desired size for lining the mold.
2. Spread the sponge with a thin coating of Sabayon I (p. 277) and then sprinkle evenly with confectioners' sugar, using a fine sieve.
3. Brown the top of the sponge. For best results, use a hand-held electric salamander iron. If this is not

available, brown under a salamander or broiler, but watch it closely to prevent it from scorching.

4. Repeat steps 2 and 3 for a second coat.
5. Turn the strip over and caramelize the other side in the same way.

Sliced Sponge

Baumkuchen (p. 413) makes an attractive lining for molds because of the striped pattern of its cut surfaces (see the Procedure for Lining a Mold with Slices of Baumkuchen, p. 455). For a recipe using baumkuchen, see Caramelized Pear Charlotte (p. 596).

Another way to make a sliced sponge lining with attractive vertical stripes is to sandwich together thin layers of sponge with jam, ganache, or other filling. The procedure for cutting the slices and lining the mold is the same as for baumkuchen. Chocolate Indulgence (p. 548) and Charlotte au Cassis (p. 541) are made this way.

Chocolate

Chocolate is an especially popular lining for cake molds. Tempered chocolate is spread on a strip of acetate and placed inside the ring mold. The acetate can remain around the cake for display, but is removed before the cake or charlotte is sliced and served. Plain chocolate may be used, but chocolate with a pattern—such as wood grain or marble—is even more attractive. These techniques are illustrated in Chapter 24 (see pages 641–642). See the procedure for Julianna (p. 473) for an example of a cake made in a ring lined with chocolate.

PROCEDURE: Lining a Mold with Slices of Baumkuchen

1. Cut a piece of baumkuchen into a strip just as wide as the desired height of the cake border (a).
2. Cut this strip crosswise into slices $\frac{1}{4}$ in. (0.5 cm) thick (b).
3. Fit these slices against the inside of the mold so the stripes are vertical (c).



Fruit

Fruits, too, can be used to line a mold, as in the procedure for Strawberry Cake (p. 463). When using fresh fruits such as strawberries, remember the finished dessert cannot be frozen because the texture of the fruit will be ruined and the fruit will lose juices when thawed, marring the appearance of the cake.

Lining the mold with a strip of acetate gives the best results. (Use parchment if acetate is not available.) Take precautions so the filling does not run between the fruit and the mold, which would detract from the cake's appearance. In the case of halved strawberries or similar fruit, press the cut surface firmly against the side of the mold, but not so tightly as to crush the fruit. Thick fillings and gelatin-based fillings that are about to set are less likely to run between the fruit and mold.

Fondant

Fondant provides a thin, smooth, shiny coating for cakes, and serves as an excellent base for paper cone decorations. Also, in hot weather, it is a good substitute for buttercream, especially for cakes that, for one reason or another, may not be kept in a refrigerated case at all times.

When fondant is used to ice a cake, especially a sponge cake, it is a good idea to first brush the top and sides of the cake with hot apricot glaze. Let the glaze set before applying the fondant. This provides a moisture barrier between the fondant and the cake, and it reduces the chance that the fondant will dry out and lose its shine. Also, it minimizes the problem of loose crumbs, which might spoil the smoothness of the icing layer.

Guidelines for using fondant are on page 421. To ice a cake with fondant, set it on an icing screen then pour the warm fondant over the cake, using a bowl knife to guide the fondant evenly over the sides.

This method can be used for coating products with melted chocolate.

Applying Rolled Coatings

Marzipan and rolled fondant are frequently used to cover cakes. Rolled fondant is most often used for wedding cakes, as it provides a fine, smooth surface as the base for more elaborate decorations. Recall from Chapter 17 that marzipan is a confection or paste made of almonds and sugar. While rolled fondant is always used as the outer layer, marzipan either can be used as an outer layer or covered with a layer of fondant or other icing. When used under fondant, marzipan, like apricot coating, serves as a moisture barrier to protect the fondant. (Production of marzipan is explained in Chapter 25, p. 657.) Rolled fondant and marzipan can be used as is or colored by kneading in the desired coloring.

Modeling chocolate is used much less often as a cake coating but is found on a few specialty products. It is handled like rolled fondant, except that it is not colored.

The following are guidelines for using rolled coatings:

1. Prepare the surface of the cake. Make sure it is perfectly smooth and free of crumbs. Seal the surface of the cake by applying a masking coat of icing (as explained on p. 436) or by brushing with melted jam. Buttercream icing is used most often under rolled fondant, while either icing or melted jam or apricot glaze may be used under marzipan. The seal coat helps the rolled coating stick to the cake and also serves as a moisture barrier between the cake and the coating.
2. Work the coating product in your hands or knead it on the workbench to make it pliable, if necessary. Using confectioners' sugar to dust the bench and rolling pin, roll out the coating into a thin sheet, as though you were rolling out pastry.
3. If marzipan is to be on the outside of the cake—that is, not covered with icing—the sheet can be textured with a ridged rolling pin. Roll the ridged pin over the sheet of marzipan once to make ridges. To make a checked or dimpled texture, roll the pin across the sheet a second time at a right angle to the first.
4. Roll the coating into a thin sheet large enough to cover the top and sides of the cake. Lift it with the rolling pin and drape it over the cake. With the palms of the hands, carefully smooth the coating and mold it against the sides of the cake. Mold the sides carefully to avoid making ripples or folds.
5. An easier alternative method for covering a round layer cake with marzipan is to coat only the top layer. Place the layer upside down on a sheet of marzipan and press it on lightly. Trim off the excess marzipan. Set the layer right side up on the cake. You can then ice the sides of the cake in a conventional manner.
6. To coat the sides of a round layer cake after coating the top, first ice the sides so the marzipan will stick. Roll out a strip of marzipan as wide as the cake is high and as long as three times the width of the cake. Roll up the strip loosely then unroll it against the sides of the cake. The cake can now be coated with fondant or another light icing.
7. To cover a strip cake or a sponge roll (Swiss roll) with marzipan or rolled fondant, roll out a sheet of coating large enough to cover the strip or roll. Coat the cake with apricot glaze or melted jam. Set the cake on the coating at one edge and roll it up in the sheet.

As an alternative, you can brush the apricot glaze onto the rolled-out coating rather than onto the cake.



KEY POINTS TO REVIEW

- What are the steps in the procedure for assembling a basic layered sponge cake?
- What are the steps in the general procedure for assembling European-style specialty cakes?
- What are the steps in the procedure for applying glaze?
- What are the procedures for lining a cake ring with a sponge strip and with cake slices?
- How are rolled coatings applied to cakes?

PROCEDURES FOR SPECIALTY CAKES

THE FIRST PART of this chapter concentrated on explaining general procedures and techniques for assembling specialty cakes. The remainder of the chapter is devoted to specific procedures for assembling a variety of cakes and cake-based desserts, including Swiss rolls and small cakes.

The instructions for specialty cakes in this chapter are assembly procedures rather than recipes, even though they may resemble recipes with their lists of ingredients or components. These procedures may be used for cakes of any size. In many cases, they can be used not only for round cakes but also for square cakes and rectangular strips. Consequently, the quantities of fillings and icings needed to complete them vary considerably. Presenting the procedures in this way reflects the normal working practices of a bakeshop. In a typical operation, cakes are baked ahead of time, and fillings, icings, and other components are prepared separately and in advance. Depending on demand or sales, individual desserts can be assembled quickly, as needed, using the materials on hand.

For a few of the more complex cakes, approximate quantities for the major components are given as guidelines. These quantities apply only to the size of cake indicated in the procedure. This does not prevent you, however, from using the procedures to make any size cake, changing the quantities as necessary.

Large Cakes

Most of the procedures in this section are for round cakes. Many of these, except those made in ring molds, could also be made as rectangles or strips, as explained on page 453. In addition, most of these cakes can be made in any size. Therefore, specific quantities of the individual components are not given in many cases; you have the freedom to make the cake in any size you wish. Bakeshops generally make cakes from the components they have on hand in larger quantities, so chefs simply use the quantities they feel they need without measuring specific amounts.

A number of more complex cakes are introduced later in the section, and the quantities required for them are included as guidelines, to help you visualize the cakes. Feel free to modify these quantities as necessary.

Finally, many molded desserts and pastries are made in the shape of cakes and decorated like cakes. For example, molded and decorated Bavarian creams, called *charlottes*, are often made in ring molds, as some cakes are. These are included with basic Bavarians in Chapter 20 if they are made without cake layers. Other desserts made in the shape of cakes are found in Chapters 15 and 22. Some of these are mentioned in the section above called Lining Charlotte Rings or Cake Rings.

Each of the procedures in this section is accompanied by a diagram to help you visualize how the components are layered and built to make the completed cake. These drawings are intended to show the structure of the cake and the relationships of its components. They are not necessarily drawn to scale. For example, you may make layers of icings thicker or thinner than those shown. Decorations for the tops of the cakes usually are not shown.

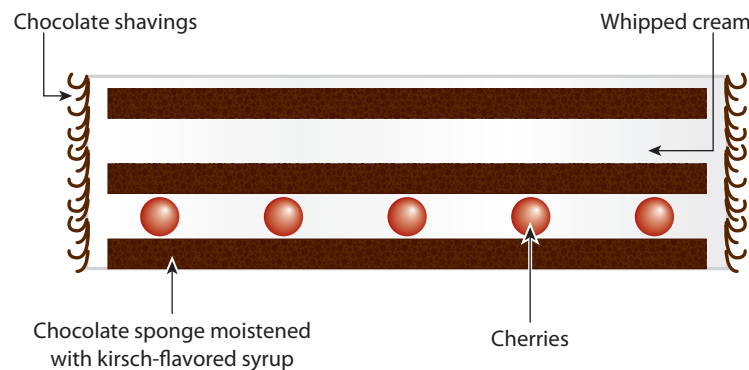
BLACK FOREST TORTE

Components

Chocolate Genoise (pp. 406), split into 3 layers, or 3 Chocolate Sponge Layers (p. 414)
 Dessert syrup flavored with kirsch
 Whipped cream flavored with kirsch
 Sweet, dark, pitted cherries, drained
 Chocolate shavings

PROCEDURE

1. Moisten one chocolate sponge layer with syrup.
2. Spread with a thin layer of whipped cream.
3. With a pastry bag fitted with a large, plain tube, pipe a circle of cream in the center of the layer. Pipe a ring of cream around the edge. Then pipe another ring in the space between these two.
4. Fill the two spaces between these rings with well-drained cherries.
5. Top with a second sponge layer. Moisten with syrup.
6. Spread with a layer of whipped cream.
7. Top with a third sponge layer, moistened with syrup.
8. Ice the top and sides with whipped cream.
9. With the back of a knife, mark off the top of the cake into the desired number of wedges.
10. Mask the sides of the cake with chocolate shavings. Sprinkle chocolate shavings in the center of the cake.
11. With a star tube, pipe rosettes of whipped cream around the top edge of the cake so that there is one on each wedge. Place a cherry on each rosette.



SCHWARZWALDER KIRSCHTORTE

The Black Forest, or Schwarzwald (SHVARTS valt) in German, lies in southwestern Germany, just east of the Rhine River. One of the prominent agricultural products of this scenic region is the cherry, or *kirsche* (keer sheh), which is used to make the clear white brandy (eau-de-vie) called *kirschwasser*. The **Black Forest Torte** (Schwarzwald Kirschtorte), made of chocolate sponge flavored with kirschwasser (or *kirsch*, for short) and layered with cherries and whipped cream, is a popular dessert in this region and is sold in most pastry shops.

MOCHA TORTE

Components

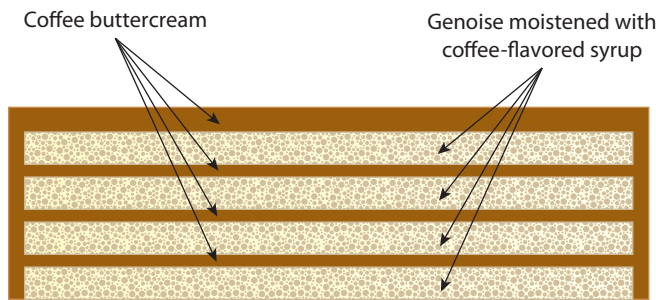
Genoise (p. 406), split into 3 or 4 layers
 Buttercream flavored with coffee (p. 423)
 Dessert syrup flavored with coffee or coffee liqueur

PROCEDURE

1. Moisten the cake layers with syrup. Sandwich them together with buttercream.
2. Ice the top and sides smoothly with buttercream.
3. Decorate as desired with a pastry bag filled with additional buttercream. Chocolate decorations are also appropriate. Sides may be masked with toasted, sliced almonds, if desired.

VARIATION

Alternate 2 thin layers of vanilla genoise with 2 thin layers of chocolate genoise.



MOCHA

Mocha, also spelled Mukha, is the name of a seaport in Yemen, on the Arabian peninsula. This city was an important exporter of a richly flavored coffee that has been prized since at least the fifteenth century. We know this coffee primarily as one of the two components of the coffee blend *mocha java*. In other words, the term *mocha* originally had nothing to do with chocolate. Today, however, we most often use the word to refer to a blend of coffee and chocolate flavors. The Mocha Torte here honors the original meaning of the word, as it is flavored with coffee only (although the variation offers a chocolate option).

FRUIT TORTE

Components

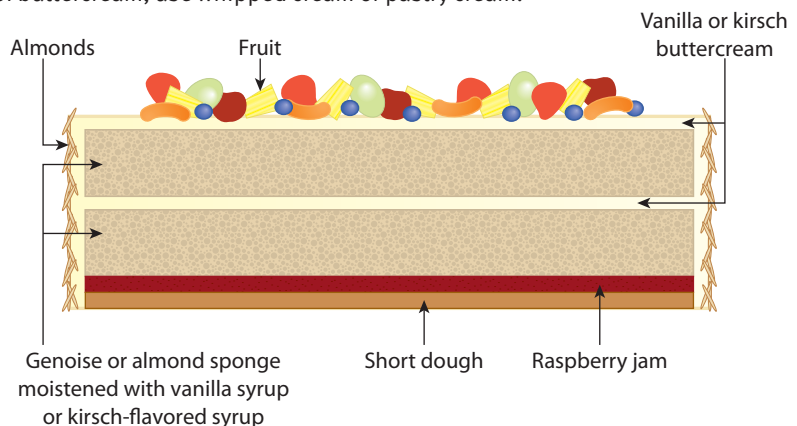
Short Dough (p. 318) or Almond Short Dough (p. 319) circle
 Genoise (p. 406) or Almond Sponge (p. 406), split into 2 layers
 Raspberry or apricot jam
 Dessert syrup flavored with vanilla or kirsch
 Buttercream flavored with vanilla or kirsch (p. 423)
 Small fruits, preferably 3 or 4 kinds, in contrasting colors (such as mandarin orange slices, cherries, grapes, banana slices, strawberries, apricot halves, and pineapple wedges)
 Apricot Glaze (p. 198)
 Almonds, sliced or chopped

PROCEDURE

1. Spread the short dough base with jam.
2. Top with a sponge layer. Moisten with syrup.
3. Spread with a thin layer of buttercream.
4. Top with second sponge layer.
5. Moisten with syrup.
6. Ice the top and sides with buttercream.
7. Arrange the fruits on the top of the cake in neat, concentric circles, as though you were making an unbaked fruit tart (p. 356).
8. Glaze the fruits with apricot glaze.
9. Mask the sides of the cake with almonds.

VARIATION

Instead of buttercream, use whipped cream or pastry cream.



DOBOS TORTE

Components

7 Dobos layers (p. 407)
 Chocolate buttercream
 (p. 422)
 Chopped almonds
 Sugar, cooked to the light
 caramel stage (p. 257)

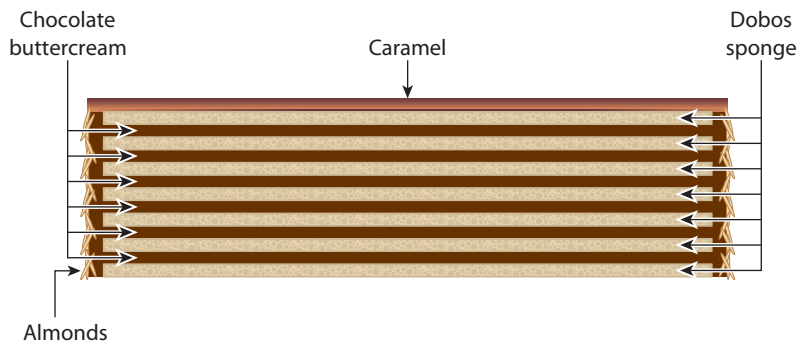
PROCEDURE

1. Set aside the best Dobos layer for the top.
2. Sandwich the other 6 layers together with chocolate buttercream.
3. Ice the top and sides completely. Mask the sides with chopped almonds.
4. Cook the sugar to the light caramel stage. Pour the hot caramel over the reserved Dobos layer to coat the top completely with a thin layer.
5. With a heavy, buttered knife, immediately cut the caramel layer into portion-size wedges.
6. Top the cake with the layer of caramel-covered wedges.

VARIATION

SEVEN-LAYER CAKE

Seven-layer cake is a variation of the Dobos Torte, except it is generally made as a strip or rectangle (see p. 453 for an explanation) rather than as a round cake. Use Dobos Mix (p. 407), seven-layer mix (p. 406), or any thin sponge layers. Sandwich together 7 layers of cake with chocolate buttercream. Coat the top and sides with chocolate buttercream, chocolate fondant, or melted chocolate.



NAPOLEON GÂTEAU

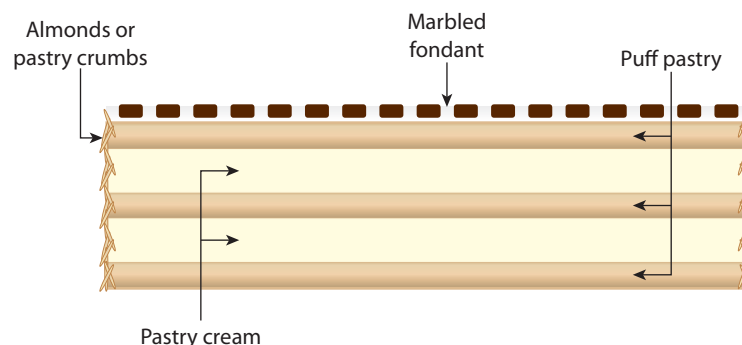
Components

Blitz Puff Pastry (p. 323) or
 scrap puff paste
 Pastry Cream (p. 267)
 White fondant
 Chocolate fondant
 Chopped almonds or puff
 paste crumbs

PROCEDURE

1. Roll out puff paste $\frac{1}{8}$ in. (3 mm) thick. Cut out 3 circles 1 in. (2.5 cm) larger in diameter than the desired cake (to allow for shrinkage during baking). Dock the pastry well. Let rest 30 minutes.
2. Bake the puff paste at 400°F (200°C) until browned and crisp. Cool. With a serrated knife, carefully trim the circles, if necessary, so they are perfectly round and uniform.
3. Sandwich the 3 layers together with generous layers of pastry cream. Use the best pastry layer for the top and place it upside down so the top is flat and smooth.
4. Ice the top with white fondant and marble it with chocolate fondant (see p. 444).
5. Carefully smooth the sides, using additional pastry cream if necessary. Mask with almonds or pastry crumbs.

NOTE: This is the same as a regular Napoleon but made in the shape of a cake.



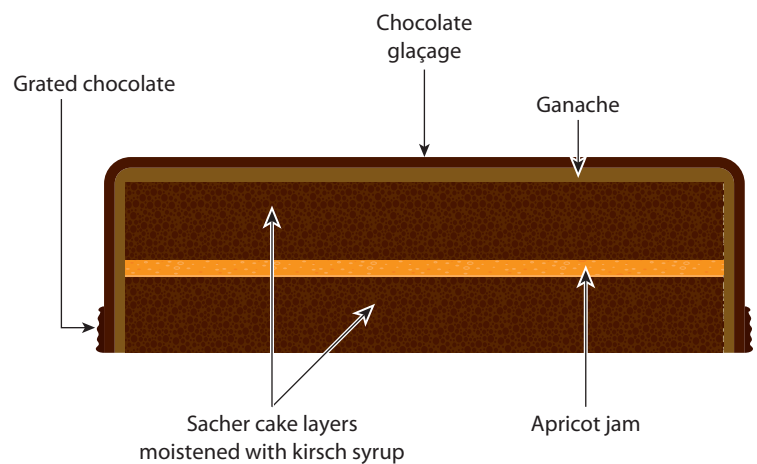
SACHERTORTE

Components

1 baked Sacher cake
(p. 400)
Dessert syrup flavored with
kirsch
Apricot jam
Ganache (p. 272)
Chocolate Glaçage (p. 430)
Grated dark chocolate

PROCEDURE

1. Trim the cake, if necessary, and cut it into 2 layers. Moisten both layers with kirsch syrup.
2. Sandwich the layers together with a layer of apricot jam.
3. Mask the top and sides of the cake with ganache, spreading it perfectly smooth.
4. Chill the cake until the ganache is firm.
5. Place the cake on a wire rack on a tray. Ice the cake by pouring warm chocolate glaçage over it. Run a palette knife over the top and tap the tray to smooth the icing. Chill until set.
6. Remove from the wire rack, neaten the bottom edge with a knife, and place on a cake board.
7. Using additional ganache, pipe the word “Sacher” across the middle of the cake. Coat the bottom of the sides with grated chocolate. (For background information on this classic Austrian cake, see page 401.)



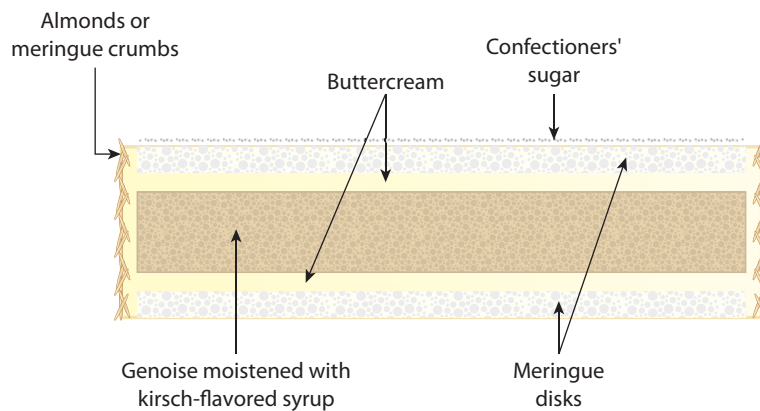
KIRSCH TORTE

Components

2 baked meringue or japonaise disks (pp. 345 and 346)
 1 baked genoise layer (p. 406), about 1 in. (2.5 cm) thick
 Dessert syrup flavored with kirsch
 Buttercream flavored with kirsch (p. 423)
 Confectioners' sugar
 Chopped almonds or meringue crumbs

PROCEDURE

1. Moisten the genoise with enough kirsch syrup to saturate it well.
2. Place a meringue or japonaise layer upside down (smooth side up) on a cake circle.
3. Spread it with a layer of buttercream.
4. Place the genoise on top and spread it with buttercream.
5. Top with the second meringue layer, smooth side up.
6. Spread the sides smoothly with buttercream and coat them with nuts or meringue crumbs.
7. Dust the top heavily with confectioners' sugar. With the back of a knife, mark the sugar in a diamond pattern.



ORANGE CREAM CAKE

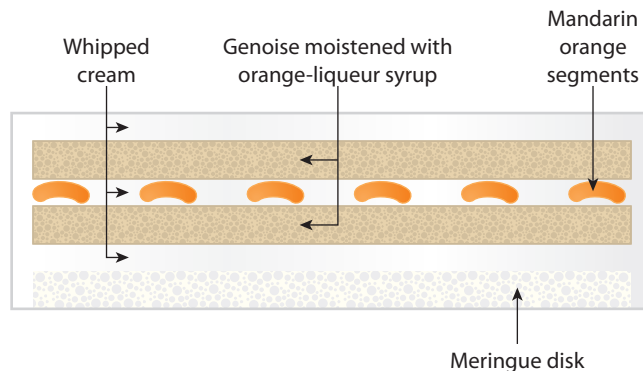
Components

1 meringue disk (p. 345)
 Genoise (p. 406), split into 2 layers
 Orange-flavored dessert syrup
 Whipped cream lightly flavored with orange liqueur
 Mandarin orange segments

PROCEDURE

1. Spread the meringue layer with whipped cream.
2. Top with a genoise layer and brush it with syrup.
3. Spread with whipped cream.
4. Arrange a layer of orange segments, well drained, on the cream.
5. Top with a second genoise layer. Moisten with syrup.
6. Ice the top and sides of the cake with whipped cream.
7. Mark the top of the cake into the desired number of wedges.
8. Decorate with rosettes of whipped cream around the top edge of the cake. Top each rosette with an orange segment.

NOTE: This procedure can be used with any appropriate fruit, such as strawberries, pineapple, apricots, and cherries. The flavor of the syrup and the cream should be appropriate to the fruit.



STRAWBERRY CAKE

Components

2 genoise layers (p. 406),
each ½ in. (1 cm) thick

Dessert syrup flavored with
kirsch

Fresh strawberries

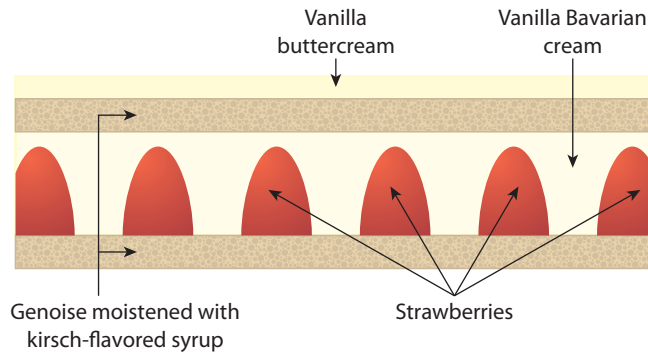
Vanilla Bavarian Cream
(p. 536)

Buttercream flavored with
vanilla (p. 423)

Piping chocolate (p. 645)

PROCEDURE

1. Line a charlotte ring with a strip of acetate. Set the ring on a cake card.
2. Place a genoise layer in the ring and brush it with syrup.
3. Select the best-looking, most uniformly sized strawberries to line the ring and cut them in half vertically. Place them on the sponge evenly spaced around the edge, with the stem end down and the cut surface against the acetate. Distribute the remaining strawberries evenly on the sponge.
4. Cover the strawberries with the Bavarian cream, which has been cooled until it is thick and just about to set, filling the ring to within ½ in. (1 cm) of the top, making sure there are no airspaces around the berries.
5. Place the second genoise layer on top, pressing down gently. Brush the top with syrup.
6. Spread the top with a thin layer of buttercream.
7. Using a paper cone, decorate the top of the cake with piping chocolate, making desired patterns (see Chapter 17).
8. Chill until set. Remove the ring, but leave the acetate around the cake until ready to serve.



CHOCOLATE MOUSSE CAKE

Components

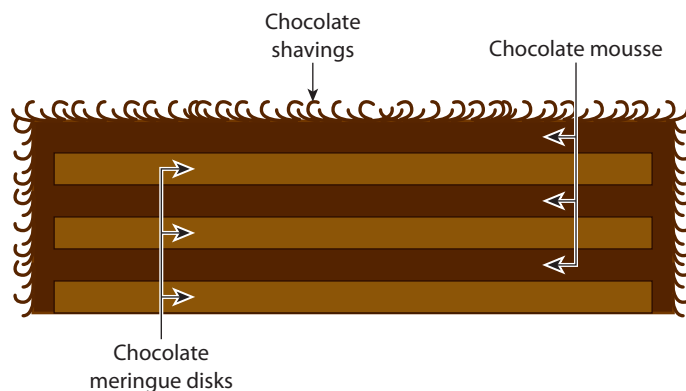
3 chocolate meringue disks
(p. 345)

Chocolate Mousse (p. 273)

Shaved chocolate

PROCEDURE

1. Sandwich together the chocolate meringue disks with chocolate mousse.
2. Ice the top and sides completely with chocolate mousse.
3. Coat the top and sides of the cake with shaved chocolate.



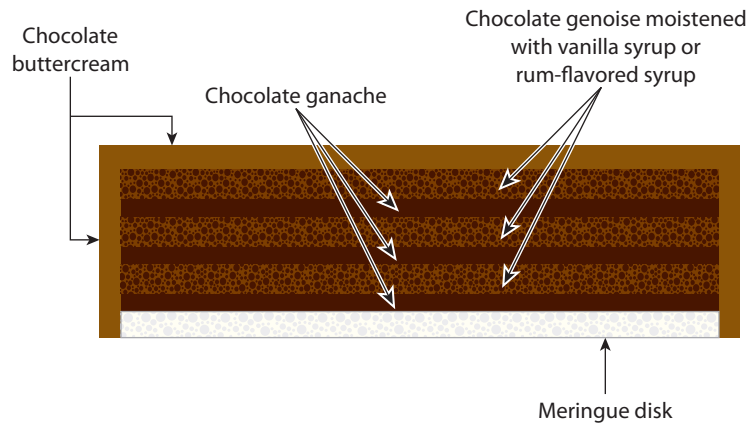
CHOCOLATE GANACHE TORTE

Components

1 plain or chocolate meringue disk (p. 345) (optional)
Whipped ganache (p. 272)
Chocolate Genoise (p. 406), split into 3 layers
Dessert syrup flavored with rum or vanilla
Chocolate buttercream (p. 422)

PROCEDURE

1. Spread the meringue disk with ganache.
2. Top with a genoise layer. Moisten with syrup and spread with a layer of ganache.
3. Repeat with a second genoise layer and more syrup and ganache.
4. Top with the remaining cake layer, moistened with syrup.
5. Ice the top and sides with buttercream.
6. Decorate as desired.



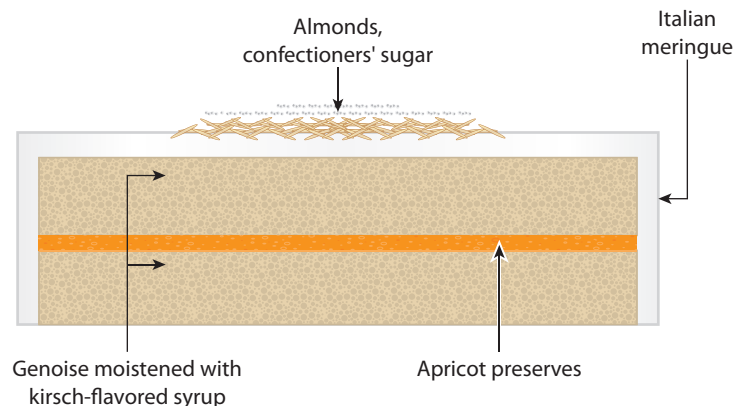
ABRICOTINE

Components

Genoise (p. 406), split into 2 layers
Dessert syrup flavored with kirsch
Apricot preserves
Italian Meringue (p. 264)
Sliced almonds
Confectioners' sugar

PROCEDURE

1. Place a layer of genoise on a cake card and brush it with syrup.
2. Spread with a layer of apricot preserves.
3. Top with the second genoise layer and brush with syrup.
4. Coat the top and sides of the cake with Italian meringue.
5. Using a pastry bag with a star tip, pipe a decorative border of Italian meringue on top of the cake.
6. Fill the center of the top of the cake with a layer of sliced almonds and dust with confectioners' sugar.
7. Place in a hot oven (500°F/250°C) until lightly browned.



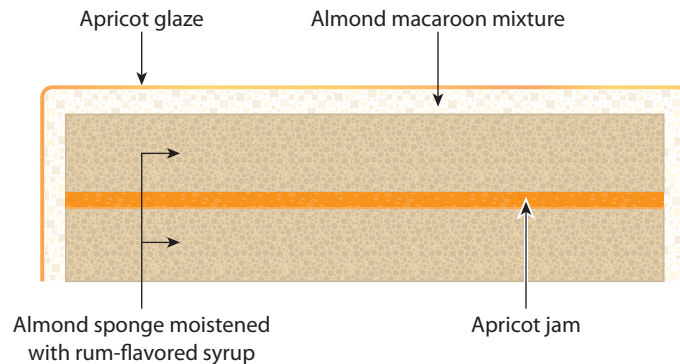
ALMOND GÂTEAU

Components

Almond Sponge (p. 406),
split into 2 layers
Dessert syrup flavored
with rum
Apricot jam
Almond macaroon mixture
(p. 506)
Apricot Glaze (p. 198)

PROCEDURE

1. Moisten the sponge layers with syrup and sandwich them together with apricot jam.
2. Coat the sides of the cake with the macaroon mixture. Using a star tube or basketweave tube, cover the top of the cake with macaroon mix in a basketweave pattern.
3. Let stand for at least 1 hour.
4. Brown quickly in a hot oven (450°F/230°C), about 10 minutes.
5. While still warm, glaze with apricot glaze.



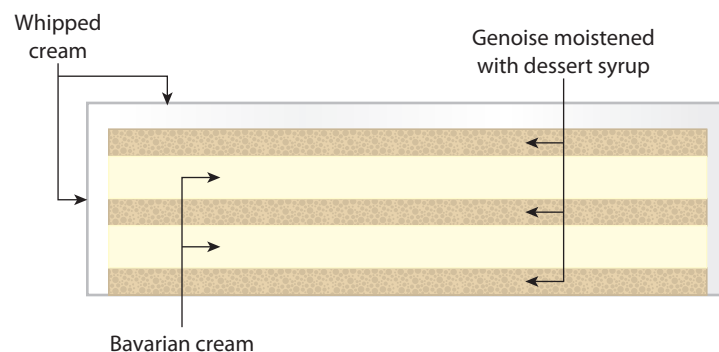
BAVARIAN CREAM TORTE

Components

Genoise (p. 406) or other
sponge cut into 3 very
thin layers, about ¼ in.
(6 mm) thick
Bavarian Cream in any
flavor (pp. 536–537)
Whipped cream flavored to
be compatible with that
of the Bavarian cream
(use chocolate whipped
cream with chocolate
Bavarian torte)
Dessert syrup, flavored
appropriately

PROCEDURE

1. Line the bottom of a charlotte ring, cake pan, or springform pan with a thin sponge layer. Moisten with syrup.
2. Prepare the Bavarian cream. Pour enough of the mixture into the cake pan to make a layer about ¾ in. (2 cm) thick.
3. Place a second layer of sponge cake on top of the cream. Moisten with syrup.
4. Fill with another layer of Bavarian cream.
5. Top with the remaining sponge layer.
6. Chill until set.
7. Unmold.
8. Ice the top and sides with whipped cream.
9. Decorate as desired.



FEUILLE D'AUTOMNE

Components

Almond Meringues
(p. 346), three 6½-in.
(16-cm) disks

Chocolate Mousse IV
(p. 546), 16–20 oz
(450–550 g)

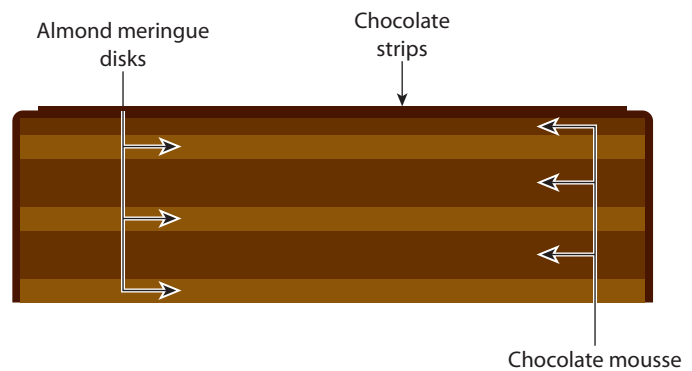
Dark chocolate couverture,
about 14 oz (400 g)

Cocoa powder

PROCEDURE

1. Place a 7-in. (18-cm) charlotte ring on a cake board. Lay one of the meringue disks in the bottom.
2. Fill the ring slightly less than half full of mousse.
3. Place a second meringue on top and press down lightly. Fill nearly to the top with mousse, then place the third meringue on top. Press down lightly.
4. Spread the top with a thin layer of mousse.
5. Chill until firm.
6. Remove the charlotte ring, using a blowtorch to help release the sides. Chill again to firm the sides.
7. Melt the chocolate couverture.
8. Heat 3 clean half-sheet pans at 325°F (160°C) for 4 minutes. Spread the melted chocolate over the bottoms of the trays. Let cool at room temperature until the chocolate begins to get cloudy. (Warming the pans enables you to spread a thinner coat of chocolate; be careful, however, not to get the pans too hot. Some chefs prefer to use cold pans.)

Note: The procedure used here is illustrated and explained in more detail in Chapter 24 (see p. 644). An experienced chef may need as little as 1 or 1½ pans of chocolate to coat the cake, but it is a good idea to prepare extra, to allow for mistakes.
9. Refrigerate to set completely.
10. Bring back to room temperature. The chocolate must be pliable but not soft. Use a metal scraper to lift strips of chocolate off the trays, as shown on page 644. Wrap these around the sides of the cake. Use the same technique to make ruffles for the top of the cake. Chill until firm.
11. Dust the top with a little cocoa powder. (The cake in the illustration is further decorated with chocolate leaves, made by brushing a leaf mold (real leaves could also be used) with tempered chocolate and letting the chocolate set before peeling off.)



ALHAMBRA

Components

One 8-in. (20-cm) round
Hazelnut Sponge Cake
(p. 412)

Coffee Rum Syrup (p. 259)
Ganache I (p. 272), made
with equal parts cream
and chocolate, about
8 oz (250 g)

Chocolate Glaçage (p. 431),
5–6 oz (150–175 g)

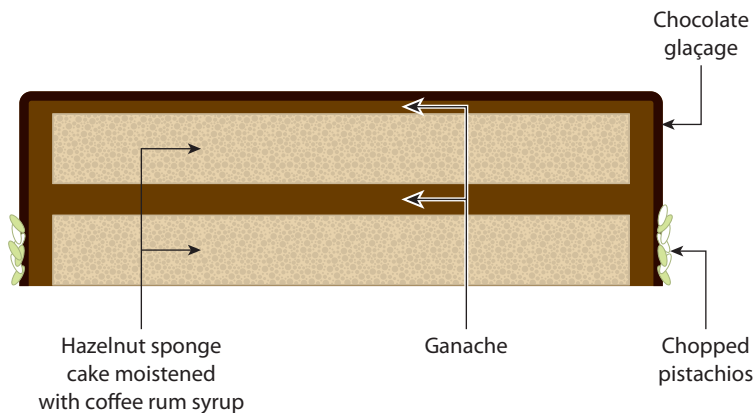
Decoration

Chopped pistachios
Marzipan rose

Note: Assembly of this cake is
illustrated on page 451.

PROCEDURE

1. Trim the top of the cake, if necessary, to make it level. Turn it upside down. Cut it in half horizontally to split into 2 layers.
2. Brush both halves with syrup to moisten.
3. Using a pastry bag with a medium plain tip, pipe the ganache onto the bottom layer, making a spiral that starts in the center and covers the layer completely.
4. Place the second layer on top and press down lightly.
5. Mask the top and sides of the cake with the remaining ganache. Chill until firm.
6. Place the cake on a wire rack over a tray. Pour the glaçage over it. Carefully run a palette knife over the top and then tap the tray to ensure the icing is perfectly smooth. Chill until set.
7. When the icing is chilled and set, remove the cake from the wire rack. Neaten the bottom edge with a knife.
8. Press chopped pistachios around the bottom ½ in. (1 cm) of the sides. Place on a cake card.
9. Using the remaining ganache, pipe the word “Alhambra” across the middle of the cake.
10. Make 2 marzipan roses and 2 leaves (see p. 659) and brush them with cocoa powder to highlight them. Arrange them attractively above the writing on top of the cake.



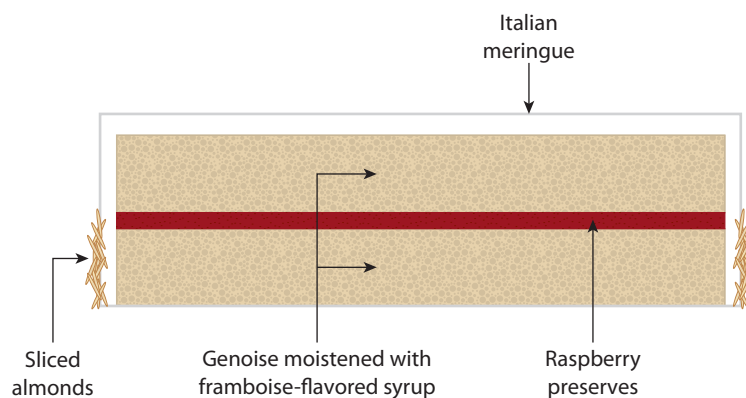
GENOISE À LA CONFITURE FRAMBOISE (GENOISE WITH RASPBERRY FILLING)

Components

Genoise (p. 406), split into 2 layers
 Dessert syrup flavored with framboise (raspberry alcohol)
 Raspberry preserves or jam (p. 597)
 Italian Meringue (p. 264)
 Sliced almonds
 Fresh raspberries
 Confectioners' sugar

PROCEDURE

1. Moisten one genoise layer with the syrup. Spread the top evenly with raspberry preserves.
2. Moisten the bottom of the second cake layer with syrup and place on top of the first layer.
3. Coat the top and sides with the Italian meringue and spread smooth with a palette knife. Using a pastry bag, decorate the top with additional meringue.
4. Press the almonds around the bottom edge of the sides of the cake.
5. Brown the meringue with a blowtorch.
6. Garnish the top of the cake with fresh raspberries and sprinkle with a little confectioners' sugar.



BRASILIA

Components

1 half-sheet pan Hazelnut Joconde Sponge Cake (p. 409)

Nougatine (p. 666), freshly prepared, 10 oz (300 g)

Dark chocolate, melted, about 2 oz (50 g)

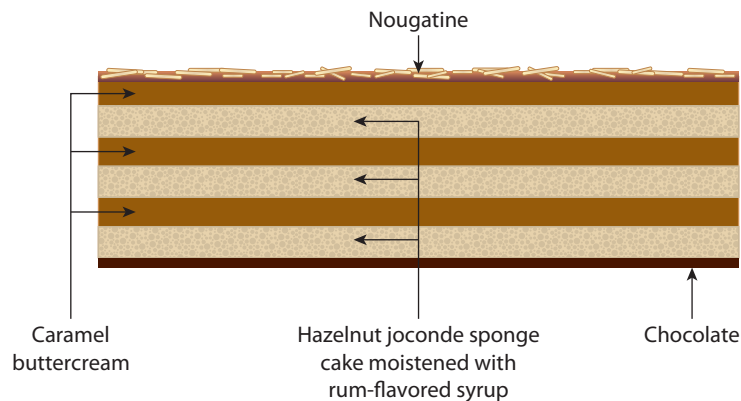
Dessert syrup flavored with rum

Caramel Buttercream (p. 426), 1 lb (500 g)

Tempered white couverture for decoration

PROCEDURE

1. Cut the sponge into 3 equal rectangles, about 6 × 12 in. (15 × 30 cm).
2. Prepare the nougatine. Roll out into a thin rectangle slightly larger than the sponge rectangles. While it is still warm, trim the edges with a sharp knife so they are straight and the rectangle is about ½ in. (1 cm) smaller on a side than the sponge (to allow for later trimming of the sponge). (If you rolled the nougatine on a silicone mat, remove it from the mat before cutting.) Cut portions of the desired size, but leave them together. Let cool.
3. Spread one sponge layer with a thin coat of melted chocolate. Refrigerate to set.
4. Remove from the refrigerator, turn chocolate side down, and brush with the rum syrup.
5. Spread with a layer of buttercream, about ¼ in. (5 mm) thick.
6. Place a second sponge layer on top, brush with syrup, and again spread with buttercream.
7. Repeat with the third layer and spread with buttercream.
8. Trim the edges and top with the nougatine.
9. Put the tempered white chocolate in a paper cone and decorate the top of the cake with a fancy border.
10. If desired, this large cake can be cut in half to make two 6-in. (15-cm) square cakes.



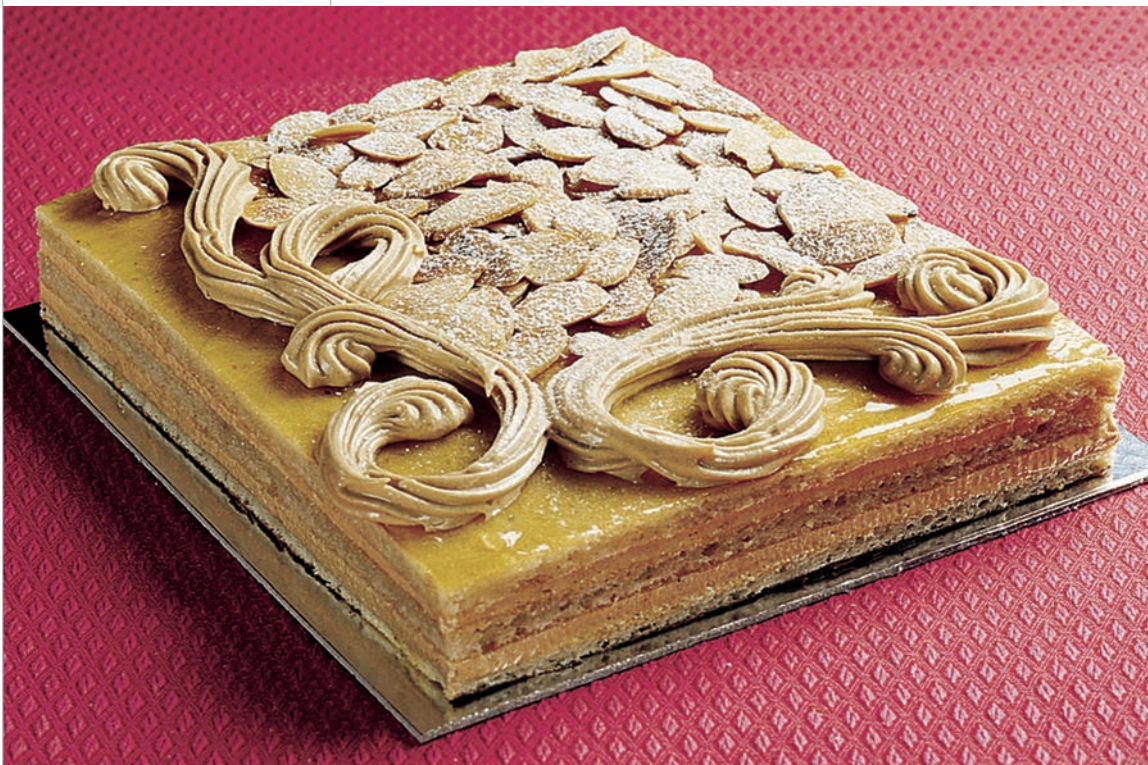
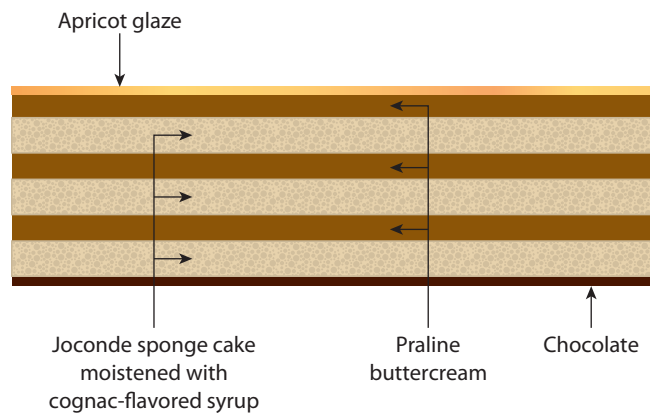
RUSSIAN CAKE

Components

1 half-sheet pan Joconde
Sponge Cake (p. 409)
Dark chocolate, melted,
about 2 oz (50 g)
Dessert syrup flavored
with cognac
Praline Buttercream
(p. 425), 1 lb (500 g)
Apricot Glaze (p. 198)
Toasted sliced almonds
Confectioners' sugar

PROCEDURE

1. Cut the sponge into 3 equal rectangles, about 6 × 12 in. (15 × 30 cm).
2. Spread one sponge layer with a thin layer of melted chocolate. Refrigerate to set.
3. Remove from the refrigerator, turn chocolate side down, and brush with the cognac syrup.
4. Spread with a layer of buttercream, about ½ in. (1 cm) thick.
5. Place a second sponge layer on top, brush with syrup, and again spread with buttercream.
6. Top with the third layer of sponge and brush with syrup. Trim the sides of the cake neatly.
7. Heat the apricot glaze and thin with water to a consistency that can be poured and spread. Glaze the top of the cake.
8. With the remaining buttercream, decorate the top of the cake with a scroll border, using a pastry bag with a star tip.
9. Garnish the top of the cake with the almonds and dust them very lightly with confectioners' sugar.



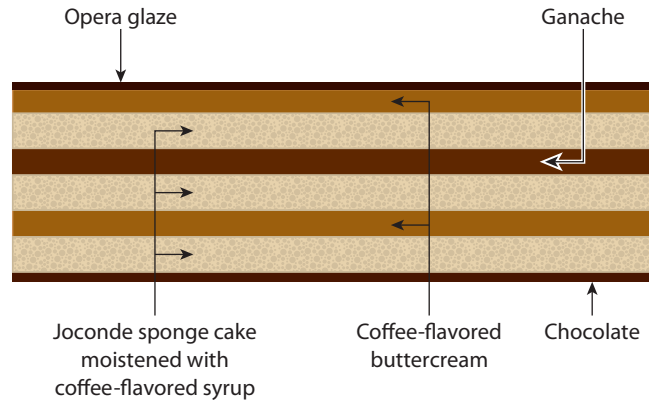
OPERA CAKE

Components

1 half-sheet pan Joconde
Sponge Cake (p. 409)
Dark chocolate, melted,
about 2 oz (50 g)
Dessert syrup flavored with
coffee extract
French Buttercream flavored
with coffee
(p. 425), 12 oz (350 g)
Ganache, 5–6 oz (150 g)
Opera Glaze (p. 432)

PROCEDURE

1. Cut the sponge into 3 equal rectangles, about 6 × 12 in. (15 × 30 cm).
2. Spread one sponge layer with a thin coat of melted chocolate. Refrigerate to set.
3. Remove from the refrigerator, turn chocolate side down, and brush with the coffee syrup.
4. Spread with a layer of buttercream, about ¼ in. (5 mm) thick.
5. Place a second sponge layer on top, brush with syrup, and spread with a thin layer of ganache.
6. Top with the third layer of sponge and brush with syrup. Spread with a layer of the buttercream. Smooth the top carefully with a palette knife. Refrigerate or freeze until firm. The cake must be quite cold so the warm glaze does not melt the buttercream.
7. Set the cake on a rack over a tray. Pour warm opera glaze over the cake. Pass a palette knife over the top of the cake and then tap the tray to smooth the glaze.
8. Chill until set. Remove from the rack and trim the sides of the cake neatly and squarely with a hot knife.
9. With additional ganache in a paper cone, pipe the word Opera on top of the cake.



MONTE CARLO

Components

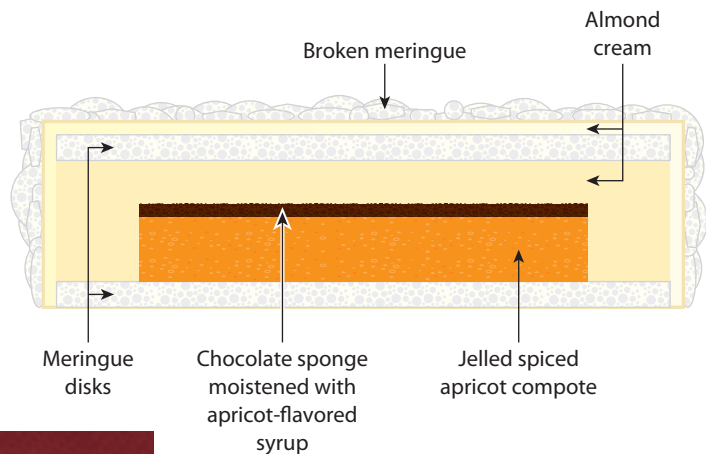
Common Meringue (p. 263), 8 oz (225 g)
 Almond Chocolate Sponge (p. 414), one circle 5, 6, or 7 in. (13–18 cm) in diameter
 Jelled Spiced Apricot Compote (recipe opposite)
 Almond Cream (p. 540), 14 oz (400 g)

Decoration

Crème Chantilly (p. 261)
 Apricot halves
 Cocoa powder
 Red currants

PROCEDURE

1. Pipe 7-in. (18-cm) circles of common meringue onto parchment paper (see p. 345 for the technique). Use all the meringue—you will need two circles for the cake, plus crumbled meringue for decoration. Bake at 325°F (160°C) until firm. Using a 7-in. (18-cm) charlotte ring like a cookie cutter, trim two of the circles to fit inside the ring.
2. Trim the almond chocolate sponge, if necessary, to fit inside a 5-in. (13-cm) cake pan. Brush generously with the reserved syrup from the apricot compote. Pour warm apricot compote on top of the sponge in the tin. Chill until set.
3. Place one of the meringue layers on a cake card. Turn out the sponge and apricot compote from the tin upside down on top of the meringue so the almond sponge layer is on top. Be sure to center this 5-in. (13-cm) circle on the meringue.
4. Place a 7-in. (18-cm) charlotte ring on the cake card enclosing the meringue layer.
5. Fill to just below the top of the ring with the almond cream. Top with the second meringue layer, pressing down gently. Chill until set.
6. Remove the charlotte ring, carefully using a blowtorch to release the ring from the sides.
7. Mask the top and sides of the cake by spreading on a thin layer of almond cream.
8. Crumble the remaining baked meringue and press the crumbs onto the sides and top of the cake.
9. Using a pastry bag with a star tip, pipe 8 rosettes of crème chantilly around the top edge of the cake. Top each with a fanned apricot half. Dust the center lightly with cocoa powder. If desired, add a few red currants for further decoration.

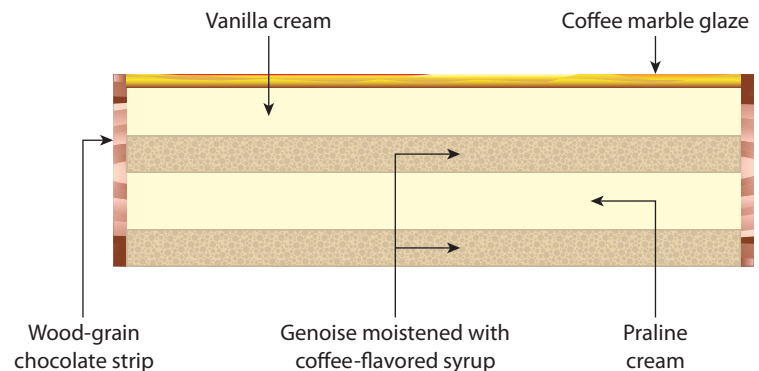


JELLED SPICED APRICOT COMPOTE

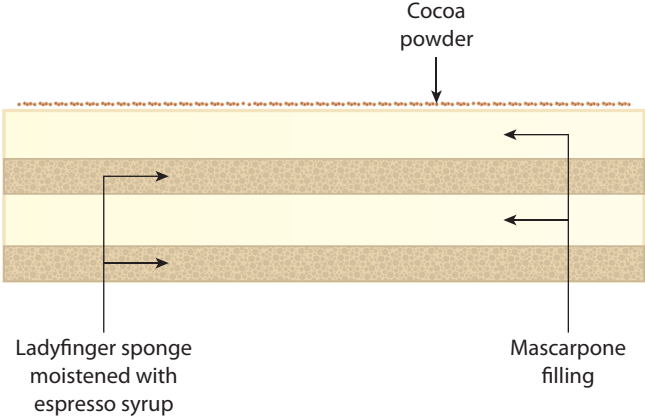
Ingredients	PROCEDURE
Canned apricots with syrup, 12 oz (350 g) Cinnamon stick, 1 Lemon peel, strips from 1 lemon Gelatin, 1/6 oz (4 g, or 2 leaves) Amaretto liqueur, 2 oz (60 mL)	<ol style="list-style-type: none"> 1. Drain and reserve the syrup from the apricots. Add the cinnamon stick and lemon peel to the syrup and bring to a boil. Add the apricots and simmer until the fruit is beginning to fall apart (if necessary, remove the apricots and chop them). Remove the cinnamon stick and lemon peel. Drain and reserve the syrup to moisten the cake layer as directed in step 2 of the recipe for Monte Carlo. 2. Soften the gelatin in cold water (see pp. 83–84). 3. Add the gelatin to the hot apricots and stir until it is dissolved. Stir in the amaretto. 4. Rewarm, if necessary, to use in the Monte Carlo on the previous page.

JULIANNA

Components	PROCEDURE
Wood-grain chocolate strip Plain genoise (p. 406), two 7-in. (18-cm) disks, 1/4–3/8 in. (1 cm) thick Coffee Syrup (p. 259) Praline Cream II (p. 543), 10 oz (300 g) Vanilla Cream (p. 426), 10 oz (300 g) Coffee Marble Glaze (p. 433), 3–4 oz (100–110 g)	<ol style="list-style-type: none"> 1. Line a 7-in. (18-cm) charlotte ring with a strip of acetate coated with wood-grain chocolate (see pp. 641–642). Set the ring on a cake card. 2. Place a disk of genoise sponge in the base of the ring. (Note: The sponge circles may be cut from a thin sheet of sponge, or cut horizontally from a thicker sponge layer.) 3. Brush the sponge with coffee syrup. 4. Fill the ring halfway with praline cream. 5. Top with a second sponge layer and press down gently and evenly. Brush the sponge with coffee syrup. 6. Fill the ring to the top with vanilla cream. Smooth with a palette knife. Chill until firm. 7. Add the coffee extract to the marble glaze (see p. 433) and swirl in lightly. Spread over the surface of the cake, swirling to give a marbled pattern. Chill well. 8. Remove the ring and peel away the acetate. Neaten the edge of the glaze with a small knife. 9. Decorate the top of the cake with a chocolate fan dusted with confectioners' sugar, a few chocolate cigarettes (p. 643), and caramelized hazelnuts.
Decoration Chocolate fan Chocolate cigarettes Caramelized hazelnuts	



TIRAMISÙ

Components	PROCEDURE
1 sheet Ladyfinger Sponge (p. 411) Strong espresso coffee, 1 pt (500 mL) Dessert syrup, 8 oz (250 mL) Mascarpone Filling (recipe follows) Cocoa powder	<ol style="list-style-type: none"> Cut the sponge sheet in half crosswise. Combine the espresso and syrup. Brush the sponge sheets generously with this syrup—use it all. Place one sponge sheet on a tray. Spread half the filling evenly over the sponge. Top with the second layer of sponge, followed by the remaining filling. Smooth the top. Chill until firm. Dust the top generously with cocoa powder. Cut 6 × 4 into 24 portions.
<p>Note: This recipe is easily cut in half. Start with a half-size sponge sheet and use half the filling and coffee syrup. Alternatively, use ready-prepared ladyfinger cookies in place of the sponge sheet.</p>	 <p>The diagram shows a cross-section of a Tiramisù cake. It consists of four layers: a top layer of yellow Ladyfinger sponge moistened with espresso syrup, a layer of brown Mascarpone filling, another layer of yellow Ladyfinger sponge moistened with espresso syrup, and a final layer of brown Mascarpone filling. The top surface is dusted with cocoa powder. Arrows point from the labels 'Ladyfinger sponge moistened with espresso syrup' and 'Mascarpone filling' to their respective layers. An arrow points from 'Cocoa powder' to the top surface.</p>

MASCARPONE FILLING

Ingredients	U.S.	Metric	PROCEDURE
Egg yolks	2 yolks	2 yolks	1. Whip the egg yolks until light.
Sugar	6 oz	180 g	2. Make a syrup of the sugar, water, and glucose and cook to 248°F (120°C). Gradually pour into the egg yolks while whipping constantly. Continue whipping until cool.
Water	4 oz	120 g	3. In a mixer fitted with the paddle attachment, mix the mascarpone until soft.
Glucose or corn syrup	2 oz	60 g	4. With the mixer running at low speed, add the egg yolk mixture a little at a time, waiting until each addition is blended in before adding more.
Mascarpone	1 lb	500 g	5. Whip the cream to soft peaks. Fold into the mascarpone mixture.
Heavy cream	1 lb 8 oz	740 g	
Approximate weight:	3 lb	1600 g	

TIRAMISÙ

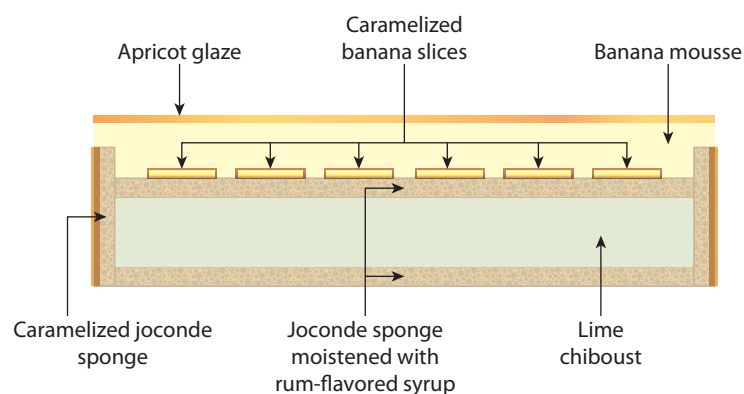
Tiramisù has become so popular that many people think it must be an old, classic Italian dessert. Some have even argued that it dates back hundreds of years, to the Renaissance period. In fact, no printed recipes for tiramisù appear until the latter part of the twentieth century, so probably the cake as we know it today is a recent invention.

The cake has been widely copied and modified. There are hundreds of different recipes for it, and almost the only thing they have in common is mascarpone cheese.

The word *tiramisù* means “pick-me-up,” in reference to the two ingredients in it that contain caffeine, coffee and cocoa.

BANANIER

Components	PROCEDURE
Joconde Sponge (p. 409) Rum Syrup (p. 259) Lime Chiboust (p. 270), 7 oz (200 g) Caramelized Banana Slices (below) Banana Mousse (p. 543), 7 oz (200 g) Chocolate spray (p. 645) Apricot Glaze (p. 198)	<ol style="list-style-type: none"> Line a 6½-in. (16-cm) ring mold with a strip of acetate. Cut two 6-in. (15-cm) circles from a sheet of joconde sponge. Cut one strip of joconde to line the side of the ring mold, making it slightly narrower than the height of the ring so the filling will show above it. Caramelize the sponge strip and circles according to the Procedure for Caramelizing Sponge on page 454. Brush the caramelized sponge strip and circles with rum syrup. Line the mold with the strip of sponge and place it on a cake card. Place one sponge circle in the bottom. Prepare the lime chiboust. Before it sets, use it to fill the ring nearly half full, then place the second sponge circle on top and press down gently. Arrange the banana slices on top of the sponge. Prepare the banana mousse. Before it sets, fill the mold to the top and then level it with a palette knife. Place in the freezer for 45 minutes, to set. Lay a decorative stencil on top of the cake and spray with a chocolate sprayer. Coat the top with apricot glaze. Garnish as desired. The cake in the illustration is garnished with 2 chocolate fans and slices of lime and banana coated with apricot glaze.
Decoration Chocolate fans Slices of lime and banana	



CARAMELIZED BANANA SLICES FOR BANANIER

Ingredients	PROCEDURE
1 banana Brown sugar, 1 oz (30 g) Butter, 2 tsp (10 g)	<ol style="list-style-type: none"> Cut the banana into slices ½ in. (1 cm) thick. Heat the sugar in a small sauté pan and add the banana slices. Heat them quickly until caramelized on both sides but not soft. Swirl in the butter. Place the banana slices on a sheet of parchment paper to cool.

Swiss Rolls

Swiss rolls are made up in much the same way as American jelly rolls, except Swiss rolls are usually more delicate. They can be made with a great variety of fillings and are often iced and decorated.

GENERAL PROCEDURE: Making Swiss Rolls

1. Bake Swiss roll sponge as directed in the formula (p. 406 or 407). Turn out onto a sheet of parchment and carefully peel the paper off the back of the sponge. Cool it partially covered so the cake does not dry out. (You may also moisten the cake with dessert syrup.)
2. Trim the edges with a sharp knife (crusty edges do not roll well).
3. Spread with the desired filling, such as:
 - Jam or jelly
 - Buttercream (pp. 422–426)
 - Ganache (pp. 272–273)
 - Chocolate Mousse (p. 273)
 - Pastry cream variations (pp. 267–269)
 - Whipped cream
 - Lemon Filling (p. 200)
 Chopped fruits or nuts may be mixed with buttercream or pastry cream.
4. If any items—such as fruit pieces or a thin rope of marzipan—are to be rolled into the center of the roll, place these along one edge of the sheet on top of the filling. Begin rolling from this edge.
5. With the aid of the sheet of parchment under the sponge, roll up the cake tightly.
6. Ice or cover the outside of the roll as desired. For example:
 - Brush with apricot glaze, then ice with fondant.
 - Coat with melted chocolate.
 - Coat with a sheet of marzipan or rolled fondant (see pp. 455–456), using apricot jam or glaze to make the coating stick.
 - Spread with a thin layer of buttercream, then coat with marzipan.
 - Spread with buttercream, then roll in coconut or chopped nuts.
7. Swiss rolls may be sold as whole cakes or cut into individual slices.

VARIATION: HALF ROLLS

1. Before icing the outside of the roll, chill the roll to make it firmer.
2. Cut a sheet of baked short pastry or sponge cake into 2 strips, each as long and as wide as the sponge roll. Spread the strips with a thin layer of icing or jam.
3. With a sharp knife, carefully cut the chilled sponge roll in half lengthwise.
4. Mount each half cut side down on one of the prepared sponge or short dough bases.
5. Ice and decorate as in the basic procedure.

ALMOND SWISS ROLLS

Components	PROCEDURE
Swiss Roll sponge (p. 407)	<ol style="list-style-type: none"> 1. Spread plain Swiss roll sponge with apricot jam, then with almond pastry cream. 2. Roll up. 3. Brush with apricot glaze and ice with white fondant. 4. While the fondant is soft, lay a row of toasted almonds along the top of the roll.
Apricot jam	
Almond pastry cream	
Apricot Glaze (p. 198)	
White fondant	
Toasted almonds	

BLACK FOREST ROLL

Components	PROCEDURE
Whipped cream fortified with gelatin (p. 260) and flavored with kirsch	<ol style="list-style-type: none"> 1. Fit a pastry bag with a plain tube and fill it with the whipped cream. 2. Pipe strips of cream about $\frac{3}{8}$ in. (1 cm) apart on a sheet of chocolate Swiss roll so the strips run the length of the roll. 3. Fill in the spaces between the strips with cherries. 4. Roll up. 5. Coat with additional cream and then with chocolate shavings.
Chocolate Swiss Roll sponge (p. 407)	
Dark sweet cherries, well drained	
Chocolate shavings	

BÛCHE DE NOËL (CHOCOLATE CHRISTMAS ROLL)

Components	PROCEDURE
Plain or chocolate Swiss Roll sponge (p. 407)	<ol style="list-style-type: none"> 1. Spread plain or chocolate Swiss roll sponge with chocolate buttercream. 2. Roll up. 3. The finished roll is intended to look like a log. To create this effect, first spread the ends with white buttercream. Then, using a paper cone, pipe on a spiral of chocolate buttercream or other chocolate icing to look like the end grain of wood. 4. Ice the rest of the roll with chocolate buttercream to resemble bark, either by using a pastry bag with a flattened star tube or by spreading on the cream and then texturing it with an icing comb. 5. Decorate with meringue mushrooms.
Chocolate Buttercream (p. 422)	
Vanilla Buttercream (p. 423)	
Meringue Mushrooms (p. 350)	

HARLEQUIN ROLL

Components	PROCEDURE
Plain Swiss Roll sponge (p. 407)	<ol style="list-style-type: none"> 1. On a sheet of plain Swiss roll sponge, pipe alternating rows of vanilla and chocolate buttercream until the roll is completely covered with stripes of buttercream running the length of the roll. 2. Roll up. 3. Coat with apricot glaze. 4. Cover with chocolate fondant or marzipan colored with cocoa.
Vanilla Buttercream (p. 423)	
Chocolate Buttercream (p. 422)	
Apricot Glaze (p. 198)	
Chocolate rolled fondant, or marzipan colored with cocoa	



MOCHA ROLL

Components	PROCEDURE
Plain Swiss Roll sponge (p. 407) Coffee buttercream (p. 423) Chocolate shavings Chocolate for drizzling	<ol style="list-style-type: none"> 1. Spread plain Swiss roll sponge with buttercream and sprinkle with chocolate shavings. 2. Roll up. 3. Ice with more buttercream. Decorate by drizzling chocolate over the icing.

PRALINE GANACHE ROLL

Components	PROCEDURE
Plain Swiss Roll sponge (p. 407) Praline Buttercream (p. 425) Ganache (p. 272) Chopped or sliced hazelnuts	<ol style="list-style-type: none"> 1. Spread plain Swiss roll sponge with praline buttercream. 2. Using a large plain tube, pipe a strip of ganache along one edge. 3. Roll up so the ganache is in the center. 4. Cover with more buttercream. Coat with chopped or sliced hazelnuts.

STRAWBERRY CREAM ROLL

Components	PROCEDURE
Plain Swiss Roll sponge (p. 407) Pastry cream (p. 267) flavored with orange flavor or orange liqueur Fresh strawberries Confectioners' sugar	<ol style="list-style-type: none"> 1. Spread plain Swiss roll sponge with flavored pastry cream. 2. Place a row of fresh strawberries along one edge. 3. Roll up so the strawberries are in the center. Dust with confectioners' sugar.

Small Cakes

Small fancy cakes in individual portion sizes can be made in many shapes and flavors. In some American bakeries, these are known as *French pastries*. Using a variety of cakes, icings, fillings, and decorations, a baker can make an unlimited variety of small, attractive cakes. This section briefly describes some of the more popular varieties.

Slices

These are simply portion-size slices of rectangular strip cakes (p. 453), Swiss rolls (p. 476), and half rolls (p. 476). An important part of the appearance of slices is the pattern made by the icing and filling layers. Therefore, it is important to cut the slices carefully and neatly.

For best results, chill or freeze the rolls or strips before slicing so the fillings and icings are firm. Use a sharp knife. Wipe the knife clean and dip it into hot water before each cut.

Slices may be lined up on trays or placed in individual paper cases for display.

Triangles

To make triangles, sandwich together four or five layers of ¼-inch (6-mm) thick sponge (such as Swiss roll sponge or seven-layer sponge) with buttercream in a contrasting color. Press the layers together firmly. Chill to solidify the cream. Cut the cake into strips 2 to 2½ inches (5 to 6 cm) wide.

Place a strip at the edge of the bench and, using a sharp knife, cut diagonally into triangles (a). Turn the triangles so the layers are vertical (b). Attach them back to back with a layer of buttercream to form a larger triangle (c).

Coat with marzipan, chocolate glaçage, or icing. Cut into slices.



A

Squares

Layer two or three sheets of cake and icing or filling so that the assembled layers are 1½ to 1¾ inches (4 cm) high. Press the layers together firmly. Chill until the filling is firm.

Cut the cake into small squares, 2 inches (5 cm) across or less. Ice the sides, then the top, with buttercream. Decorate as desired.



B

Othellos

Othellos are small, round cakes made with a special sponge mixture. Prepare the mix for Sponge Roll I (p. 406), but reduce the first quantity of sugar to 25% (3 oz/90 g). Using a pastry bag with a plain tube, pipe 2-inch (5-cm) mounds onto silicone paper. Bake at 400°F (200°C). Cool. Scoop out a little of the cake from the flat side of each Othello base to make more room for the filling. Select half the cakes to be bottom halves and slice a little off the top of each to make a flat surface.

Sandwich two cakes together (one top and one bottom half) with appropriate filling (see below). Brush with apricot glaze. Set on screens and ice with fondant. To decorate, use a paper cone to pipe a spiral of fondant in the same color on the top of each Othello.

Although the term *Othello* is used for this whole category of pastries, it is traditional to use specific names for cakes of different flavors, as follows:

Othellos	Filling: chocolate pastry cream Icing: chocolate fondant
Iagos	Filling: coffee-flavored pastry cream Icing: coffee fondant
Desdemonas	Filling: whipped cream flavored with vanilla Icing: white fondant flavored with kirsch
Rosalinds	Filling: whipped cream flavored with rose water Icing: pink fondant flavored with rose water



C

Petits Fours

The term *petit four* can be used to refer to almost any small cake or pastry item small enough to be eaten in one or two bites. *Petit* in French means “little” and *four* means “oven.” Most petits fours are small baked items, although a few are not baked.

Petits fours are divided into two categories: *Petits fours secs* (*sec* means “dry”) include a variety of small, dainty cookies, baked meringues, macaroons, and puff pastry products. These will be discussed further in the next chapter.

Petits fours glacés are iced petits fours (*glacé* means, in this case, “iced”). This category includes such items as tiny éclairs, tartlets, filled meringues, and cakes. In fact, nearly any iced or creamed pastry or cake item may be called a petit four as long as it is small enough to be eaten in one or two bites.

In North America, the usual type of petit four is a cake cutout iced with fondant. In fact, most people are probably not aware of any other kind. Because of its popularity, the fondant-glazed petit four should be in the repertoire of every pastry cook. See the general Procedure for Making Fondant-Iced Petits Fours given on page 480.

DRAMATIC PASTRIES

The pastries known collectively as Othellos are named after characters in Shakespeare's drama *The Tragedy of Othello, the Moor of Venice*—except one. The flawed hero Othello is misled by the evil Iago into believing that his wife, Desdemona, is unfaithful to him. He kills her in a fit of jealousy. The character of Rosalind is from another of Shakespeare's plays, the comedy *As You Like It*.

PROCEDURE: Making Fondant-Iced Petits Fours

1. Select a firm, close-grained cake. Cake that is too coarse, soft, or crumbly is difficult to cut evenly into small shapes. Of the formulas in this book, Almond Cake for Petits Fours (p. 399) is recommended. Other suitable choices are Almond Sponge II (p. 406) and Pound Cake (see the variation for petits fours on p. 398). For one sheet of petits fours you will need 3 sheets of cake, $\frac{1}{4}$ in. (6 mm) thick each. The finished, iced petits fours should be no more than 1 in. (2.5 cm) high.
2. Lay one sheet of cake on a sheet pan and spread with a thin layer of hot apricot jam or of buttercream. Top with the second sheet.
3. Repeat with the third sheet. Spread the top with a thin layer of jam or the same filling used between the layers.
4. Roll out a thin sheet of marzipan the same size as the cake sheet. Roll it up loosely on the rolling pin, then unroll it to cover the cake. Run the rolling pin over the top to make sure the layers are stuck together firmly.
5. Place a sheet of parchment on top of the marzipan, then place a sheet pan on the parchment. Invert the entire assembly so the marzipan layer is on the bottom. Remove the top sheet pan.
6. Wrap the cake in plastic film and freeze. This firms the cake so the neatest possible pieces can be cut from it.
7. Using appropriate cutters, cut out small squares, rectangles, diamonds, ovals, circles, or other shapes. Remember to keep them small—no more than 1 in. (2.5 cm) across.
8. Prepare fondant for icing. Thin the fondant with simple syrup so it will coat the cakes with a very thin layer. You may also color it very lightly.
9. Place the petits fours 1 in. (2.5 cm) apart on an icing grate over a tray. Pour the fondant over each one, making sure to cover the top and sides completely. Alternatively, you may dip each cake in warm fondant. Push the cake upside down into the fondant until the bottom is level with the icing. With two chocolate forks (see p. 646), one on the bottom and one on the top, lift the cake out of the fondant, invert it, and set it on an icing grate to drain.
10. When the icing is set, use chocolate, piping gel, or colored fondant to decorate the tops of the petits fours.
11. As an interesting variation, before icing the petits fours, pipe a small bulb of buttercream on top of each cake. Refrigerate to harden the buttercream. Then coat the petits fours with fondant.



KEY POINTS TO REVIEW

- What is the procedure for making Swiss rolls?
- What are petits fours glacés and petits fours secs?
- What is the procedure for making fondant-iced petits fours?

TERMS FOR REVIEW

gâteau

charlotte

Swiss roll

petit four

torte

Black Forest torte

Othello

petit four glacé

charlotte ring



QUESTIONS FOR DISCUSSION

1. Briefly list the steps in assembling a typical basic European-style cake or gâteau.
2. Describe how to cut cake slices to achieve the neatest results.
3. Describe four ways to line a ring mold for a cake.
4. What precautions must be taken when using fruit to line a ring mold?
5. Describe the procedure for caramelizing a strip of sponge.
6. Describe the procedure for covering a cake with marzipan.