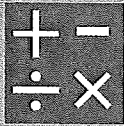


## Case Study Follow-Up *Want to Do Lunch?*

According to the case study, Uptown Grille has been open for lunch for two months. After an initial spurt, business has slowed down. The customers have mostly responded positively to the quality and flavor of the food, the service, and the prices. Linda is not sure why the operation isn't doing better.

- ① What can Uptown Grille do to make sure the menu is varied enough to appeal both to people who like fine dining and people who are very health conscious?
- ② What steps can Linda take to keep costs within reason?
- ③ What can she do to ensure that customers will come back again?
- ④ Was opening only a few days a week a good way to start offering lunch? Why or why not?

## Apply Your Learning



### Math Makes a Good Soup

With a good recipe, you can make a good soup every time. However, a recipe makes a given amount of a dish, called the **yield**. If the recipe makes four cups of soup, the yield is four cups. This might be the perfect size batch to make if you are serving four people; each person would get one cup of soup. But if you have ten people to serve, how do you convert the recipe? Select a soup recipe and convert it to a ratio formula.



### Soup Time Line

Research and create a history of soup, developing a time line. When was soup first created? What purpose did it serve? How did it become a popular and accepted standard fare? Is the original purpose still evident today?



### Thickening Up

Starch thickeners provide structure and body to soups, sauces, pie fillings, and other liquids. The starch swells with water and forms a gel structure that gets thick. As the gel forms and heats it becomes clearer, so the product does not look as milky as the starch solution did at first. Thickening is a chemical reaction that cannot be reversed. Once a dry powdered starch becomes a thickened gel, it will not return to a dry powder on its own.

Wheat flour mixes best with fat. A thin coating of fat helps the flour distribute evenly in a hot liquid. This is why flour and butter are mixed to make a roux or *beurre manié*. The liquid must be hot to keep the fat melted so that lumps do not form.

Cornstarch mixes better in cold water. If the water is hot, the gel begins to form too soon. This will cause lumps with gel outside and powder inside. Once a cold-water slurry is made, the cornstarch can be mixed evenly into a liquid.

Create a reference chart about four thickeners: flour, cornstarch, arrowroot, and tapioca. Include all pertinent information in your table, such as mixing method, food uses, potential problems, benefits, and temperature range for best thickening.

### Critical Thinking

### Low-Fat Soup and Low-Fat Sauce

Restaurants often notify customers of menu items that are considered “Heart-Healthy” and low in fat. What are some low-fat soup choices? What are some low-fat sauce choices?

## Exam Prep Questions

- ① The essential part of stock that is a mixture of coarsely chopped onions, carrots, and celery is called
  - A. mirepoix.
  - B. aromatics.
  - C. *sachet d'épices*.
  - D. bouquet garni.
- ② What liquid is usually used for making stock?
  - A. Water
  - B. Boullion
  - C. Beef broth
  - D. Chicken broth
- ③ Roasting bones to enhance the flavor and color of stock is a process known as
  - A. sweating.
  - B. browning.
  - C. blanching.
  - D. par-boiling.
- ④ The ratio of liquid to flavoring ingredients in vegetable stock is
  - A. 1 lb of vegetables to 1 qt of water to yield 1 qt of stock.
  - B. 2 lbs of vegetables to 4 qts of water to yield 1 qt of stock.
  - C. 11 lbs of vegetables to 5 qts of water to yield 1 gal of stock.
  - D. 8 lbs of vegetables to 6 qts of water to yield 1 gal of stock.
- ⑤ After the stock has been stored, it must be degreased before it can be used. This is because
  - A. it is easier to heat up degreased stock.
  - B. the grease will ruin the flavor of the stock, turning it rancid.
  - C. all of the fat must be skimmed off in order for the stock to be healthful.
  - D. degreasing makes the stock clearer and purer, while removing some of the fat.
- ⑥ Béchamel, velouté, and hollandaise are all called
  - A. thickeners.
  - B. grand sauces.
  - C. derivative sauces.
  - D. compound butters.
- ⑦ A slurry, a liaison, and a roux are all considered to be
  - A. soups.
  - B. stocks.
  - C. aromatics.
  - D. thickeners.
- ⑧ What is a mixture of egg yolks and heavy cream that adds a rich flavor and velvety smoothness to the sauce without making it too thick?
  - A. Slurry
  - B. Liaison
  - C. Hollandaise
  - D. Compound butter

9 Stocks, broths, and consommés are all \_\_\_\_\_ soups.

- A. clear
- B. thick
- C. puréed
- D. bisque

10 Thick soups can be thickened with

- A. cream.
- B. cornstarch.
- C. bouquet garni.
- D. compound butter.

## Fish stock

*Cooking time: 60 minutes*

*Yield: 1 gal*

### Ingredients

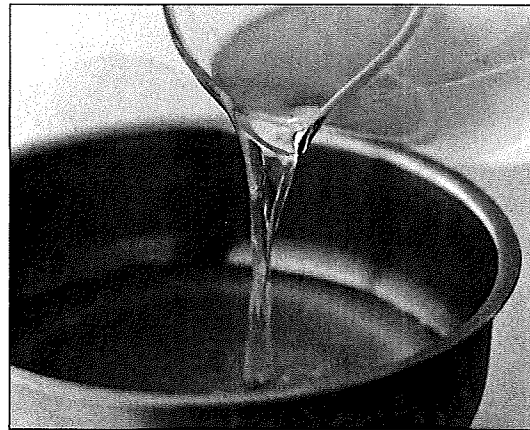
1 lb Mirepoix, small dice  
 8 oz Mushroom trimmings  
 2 fl oz Clarified butter  
 10 lb Fish bones or crustacean shells  
 5 qt Water

### Sachet:

2 Bay leaves  
 ½ tsp Dried thyme  
 ¼ tsp Peppercorns, crushed  
 8 Parsley stems

### Directions

1. Sweat mirepoix and mushroom trimmings in butter until tender for 1 to 2 minutes.
2. Combine all ingredients except the sachet in a stockpot.
3. Bring to a simmer and skim impurities as necessary.
4. After 15 to 30 minutes into the cooking process, add the sachet and simmer uncovered for 30 to 45 minutes.
5. Strain, cool, and refrigerate.



### Recipe Nutritional Content

Calories	25	Cholesterol	0 mg	Protein	4 g
Calories from fat	10	Sodium	240 mg	Vitamin A	0%
Total fat	1.5 g	Carbohydrates	0 g	Vitamin C	0%
Saturated fat	0 g	Dietary fiber	0 g	Calcium	0%
Trans fat	0 g	Sugars	0 g	Iron	0%

Nutritional analysis provided by FoodCalc®, [www.foodcalc.com](http://www.foodcalc.com)

## Velouté

*Cooking time: 45 minutes*

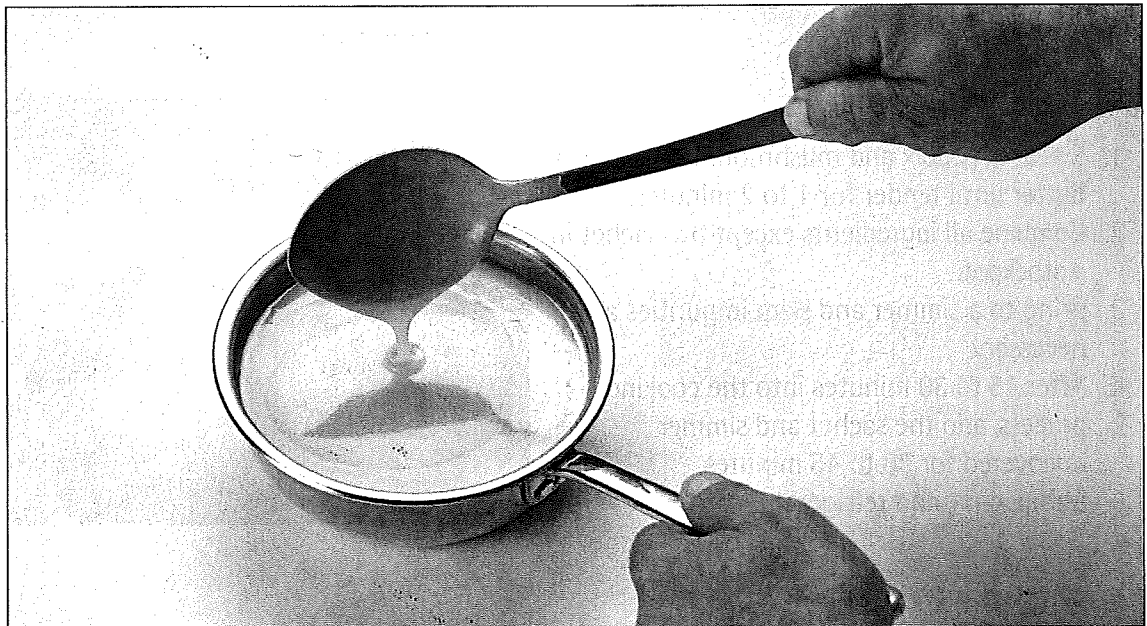
*Yield: 1 gal*

### Ingredients

8 fl oz	Clarified butter	5 qt	Chicken, veal, or fish stock
8 oz	Flour	To taste	Salt and white pepper

### Directions

1. Heat the butter in a heavy saucepan. Add the flour and cook to make a blond roux.
2. Gradually add the stock to the roux, stirring constantly with a whisk to prevent lumps. Bring to a boil and reduce to a simmer. (Seasonings are optional; their use depends on the seasonings in the stock and the sauce's intended use.)
3. Simmer and reduce to 1 gallon (4 liters), approximately 30 minutes.
4. Strain through a china cap lined with cheesecloth.
5. Melted butter may be carefully ladled over the surface of the sauce to prevent a skin from forming. Hold for service or cool in a water bath.



### Recipe Nutritional Content

Calories	4,180	Cholesterol	630 mg	Protein	146 g
Calories from fat	2,160	Sodium	8,470 mg	Vitamin A	120%
Total fat	244 g	Carbohydrates	343 g	Vitamin C	15%
Saturated fat	132 g	Dietary fiber	6 g	Calcium	20%
Trans fat	0 g	Sugars	77 g	Iron	115%

Nutritional analysis provided by FoodCalc®, [www.foodcalc.com](http://www.foodcalc.com)



## New England-Style Clam Chowder

*Cooking time: 45 minutes*

*Yield: 3½ qt*

### Ingredients

2 qt	Canned clams with juice	1 qt	Milk
Approx 1½ qt	Water or fish stock	8 fl oz	Heavy cream
1 lb 4 oz	Potatoes, small dice	To taste	Salt and pepper
8 oz	Salt pork, small dice	To taste	Tabasco sauce
2 oz	Whole butter	To taste	Worcestershire sauce
1 lb	Onions, small dice	To taste	Fresh thyme
8 oz	Celery, small dice	As needed for garnish	Fresh parsley
4 oz	Flour	As needed for garnish	Carrot, julienned

### Directions

1. Drain the clams, reserving the clams and putting their liquid in the stockpot. Add enough water or stock to the clam liquid so that the total liquid equals 2 quarts.
2. Simmer the potatoes in the clam liquid until nearly cooked through. Strain and reserve the potatoes and the liquid.
3. Render the salt pork with the butter. To render fat, melt it over low heat until the fat is liquid. Strain the liquid fat to remove any particles of pork that remain.
4. Add the onions and celery to the rendered fat and sweat until tender but not brown.
5. Add the flour and cook to make a blond roux.
6. Add the clam liquid to the roux, whisking away any lumps.
7. Simmer for 30 minutes, skimming as necessary.
8. Bring the milk and cream to a boil and add to the soup.
9. Add the clams and potatoes, and season to taste with salt, pepper, Tabasco sauce, Worcestershire sauce, and thyme.
10. Garnish each serving with fresh parsley and julienned carrot as desired.



### Recipe Nutritional Content

Calories	560	Cholesterol	120 mg	Protein	28 g
Calories from fat	280	Sodium	650 mg	Vitamin A	20%
Total fat	31 g	Carbohydrates	42 g	Vitamin C	50%
Saturated fat	15 g	Dietary fiber	5 g	Calcium	20%
Trans fat	0 g	Sugars	3 g	Iron	145%

Nutritional analysis provided by FoodCalc®, [www.foodcalc.com](http://www.foodcalc.com)