



## Math: Let's Make Omelets!

### Students will

- Use mathematical operation to solve real world situations.
- Utilize a chart and analyze data to answer questions.
- Make conversion between measuring amounts

### Copies for Each Student

- Recipes for Omelets
- Activity Worksheet 1, 2, or 3 as appropriate

### Copies for the Teacher

- Recipes for Omelets
- **Answer Key** Activity Worksheet 1, 2, or 3 as appropriate

### Getting Ready

- Decide which worksheet(s) you wish your group to complete.
- Gather Pens or pencils

### Introduction

**Teachers:** Depending on your grade level and the ability of your students, you may choose to conduct this lesson as a whole class, small group, or partner activity. You may choose to have your students use calculators or not. Remind students to ask for clarification of any unknown words or concepts.

### Guided/Independent Practice

Provide each student with a **“Recipes for Omelets”** guide and read it with them. Tell them that the activity they will be doing will focus on making the Italian Cheese Omelet.

Give each student a copy of **Activity Worksheet 1, 2, or 3** as appropriate for your class. Read the directions and assist students as necessary. Discuss the different mathematical operations and conversions necessary to complete the assignment. Allow students time to complete the activity worksheets and allow time to check the answers in class.

### Evaluation

1. Did the students understand how to make omelets?
2. Were the students able to complete the activity worksheets as assigned?

**TEKS: Mathematics**

**Grade 3**

- (1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. (A, B, E.)
- (5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. (E)
- (7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. (A, D, E)
- (8) Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. (A, B)

**Grade 4**

- (1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical. (C, F, G)
- (8) Geometry and measurement. The student applies mathematical process standards to select appropriate customary and metric units, strategies, and tools to solve problems involving measurement. (A, B, C)
- (9) Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. (A, B)

**Grade 5**

- (1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to: (A, B, C, G)
- (3) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations to solve problems with efficiency and accuracy. (A, L)
- (7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving measurement.

**Grade 6**

- (1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. (A, B, C, F, G)
- (3) Number and operations. The student applies mathematical process standards to represent addition, subtraction, multiplication, and division while solving problems and justifying solutions. (A, D, E)

**7th grade**

- (1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. (A, B, C, F, G)
- (12) Measurement and data. The student applies mathematical process standards to use statistical representations to analyze data. (B, C)

**8th grade**

- (1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. (A, B, C, F, G)
- (11) Measurement and data. The student applies mathematical process standards to use statistical procedures to describe data. (C)

**Correlates:** Music

**Gardner's Intelligences:** Logical-Mathematical, Linguistic

**Bloom's Taxonomy:** Knowledge, Comprehension, Application, Analysis, Evaluation, Synthesis

**Bibliography**

Editors of Better Homes. Better Homes and Gardens New Cook Book. New York: Meredith Press, 1969.

## Recipes for Omelets

An omelet is a mixture of eggs and seasonings that is cooked in a well-buttered and well-heated pan or skillet until firm and delicately browned. Liquid such as cream, milk, or water is sometimes added. There are two basic kinds of omelets: the French omelet, in which the whole egg is beaten; and the puffy omelet, in which egg whites are beaten separately from egg yolks. The latter method produces a fluffier omelet. All omelets are varieties of these two kinds.

### Basic French Omelet

4 eggs  
salt and pepper  
1 tbsp butter

Beat eggs with 2 tablespoons water. Add a little salt and pepper for taste. Heat butter in omelet pan or skillet over medium heat until butter is hot and bubbly. Add egg mixture and cook until set around edge. Pull omelet away from side of pan with fork, rolling pan to allow uncooked egg to seep down underneath. Fold omelet over when set but not dry. Place on heated serving platter. Serve immediately. Yield 1-2 servings.

### The Italian Cheese Omelet (A variation of the French Omelet)

8 eggs  
1tsp. salt  
1tbsp. parsley, chopped  
½ c. cubed Parmesan cheese  
Pepper to taste  
½ tbsp. corn oil or olive oil

Break eggs into medium bowl. Beat with a rotary beater, fork, or whisk until mixed, but not foamy. Add salt, parsley, cheese and pepper. Heat oil in frying pan over medium heat. Pour egg mixture into pan; lower heat slightly. Cook until omelet is set around edges, loosening omelet occasionally with spatula. Fold omelet over, brown slightly. Yield: 4 servings.

Substitutions:

Parsley – green onions, cilantro, spinach  
Parmesan Cheese – Swiss, American, Jack

Additions: mushrooms, bacon, tomatoes

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**Just for fun:** Does your family have a favorite way to prepare eggs? Write the recipe below. Share with your friends.

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Name \_\_\_\_\_

Date \_\_\_\_\_

## Activity Worksheet 1: Italian Cheese Omelets

**Directions:** To celebrate the study of Bizet's *Doctor Miracle*, your grade level is having a party for 80. There will be 8 cooking stations to prepare the omelets. Compute the ingredients needed.

If the recipe serves 4 people, then to serve 80 people ( $80 \text{ divided by } 4 = \underline{\hspace{2cm}}$ ), you will need to multiply  $\underline{\hspace{2cm}}$  X the amount of each ingredient.

1. Eggs \_\_\_\_\_
2. Salt \_\_\_\_\_
3. Parsley \_\_\_\_\_
4. Parmesan cheese \_\_\_\_\_
5. Pepper to taste \_\_\_\_\_
6. Oil \_\_\_\_\_

Use answers in #1 - #6 to calculate what has to be purchased. Use the chart for conversions.

|                            |                                     |                          |
|----------------------------|-------------------------------------|--------------------------|
| 3 teaspoons = 1 tablespoon | 16 tablespoons = 1 cup              | 2 cups = 16 fluid ounces |
| 1 bunch of parsley = 1 cup | 1 pound of Parmesan cheese = 4 cups |                          |

7. If one dozen eggs are in a carton, how many cartons of eggs do you need to purchase?  
\_\_\_\_\_
8. If one bunch of parsley equals 2 cups, how many bunches do you need?  
\_\_\_\_\_
9. If one 26 oz. container of salt holds 491 servings at  $\frac{1}{4}$  tsp. per serving, how many containers of salt, do you need?  
\_\_\_\_\_
10. How many pounds of Parmesan cheese?  
\_\_\_\_\_
11. Will a 16.9 fluid ounce container of oil be enough? \_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

## Activity Worksheet 2: Italian Cheese Omelets

Directions: To celebrate the study of Bizet's *Doctor Miracle*, your grade level is having a party for 82. There will be 8 cooking stations to prepare the omelets. Compute the ingredients needed.

If the recipe serves 4 people, then to serve 82 people ( $82 \text{ divided by } 4 = \underline{\hspace{2cm}}$ ), you will need to multiply  $\underline{\hspace{2cm}}$  X the amount of each ingredient.

1. Eggs \_\_\_\_\_
2. Salt \_\_\_\_\_
3. Parsley \_\_\_\_\_
4. Parmesan cheese \_\_\_\_\_
5. Pepper to taste \_\_\_\_\_
6. Oil \_\_\_\_\_

Use answers in #1 - #6 to calculate what has to be purchased. Use the chart for conversions.

|                            |                                     |                          |
|----------------------------|-------------------------------------|--------------------------|
| 3 teaspoons = 1 tablespoon | 16 tablespoons = 1 cup              | 2 cups = 16 fluid ounces |
| 1 bunch of parsley = 1 cup | 1 pound of Parmesan cheese = 4 cups |                          |

7. If one dozen eggs are in a carton, how many cartons of eggs do you need to purchase?

\_\_\_\_\_

8. If one bunch of parsley equals 2 cups, how many bunches do you need?

\_\_\_\_\_

9. If one 26 oz. container of salt holds 491 servings at  $\frac{1}{4}$  tsp. per serving, how many containers of salt, do you need?

\_\_\_\_\_

10. How many pounds of Parmesan cheese?

\_\_\_\_\_

11. Will a 16.9 fluid ounce container of oil be enough?

\_\_\_\_\_

Name \_\_\_\_\_

Date \_\_\_\_\_

### Activity Worksheet 3: Italian Cheese Omelets

**Directions:** To celebrate the study of Bizet’s *Doctor Miracle*, your grade level is having a party for 82. There will be 8 cooking stations to prepare the omelets. Compute the ingredients needed.

If the recipe serves 4 people, then to serve 82 people ( $82 \text{ divided by } 4 = \underline{\hspace{2cm}}$ ), you will need to multiply  $\underline{\hspace{2cm}}$  X the amount of each ingredient.

1. Eggs \_\_\_\_\_

4. Parmesan cheese \_\_\_\_\_

2. Salt \_\_\_\_\_

5. Pepper to taste \_\_\_\_\_

3. Parsley \_\_\_\_\_

6. Oil \_\_\_\_\_

If the ingredients are going to be divided equally among the cooking stations, what amounts will be needed for each cooking station? Use answers in # 1 – 6 to compute your answers.

7. Eggs \_\_\_\_\_

8. Salt \_\_\_\_\_

9. Parsley \_\_\_\_\_

10. Parmesan cheese \_\_\_\_\_

11. Pepper (you need 1 Pepper shaker per cooking station) \_\_\_\_\_

12. Oil \_\_\_\_\_

Use answers in #1 - #6 to calculate what needs to be purchased. Use the chart for conversions.

|                            |                                     |                          |
|----------------------------|-------------------------------------|--------------------------|
| 3 teaspoons = 1 tablespoon | 16 tablespoons = 1 cup              | 2 cups = 16 fluid ounces |
| 1 bunch of parsley = 1 cup | 1 pound of Parmesan cheese = 4 cups |                          |

13. If one dozen of eggs are in a carton, how many cartons of eggs do you need to purchase?  
\_\_\_\_\_

14. If one bunch of parsley equals 2 cups, how many bunches do you need?  
\_\_\_\_\_

15. If one 26 oz. container of salt holds 491 servings at ¼ tsp. per serving, how many containers of salt, do you need? \_\_\_\_\_

16. How many pounds of Parmesan cheese? \_\_\_\_\_

17. Will a 16.9 fluid ounce container of oil be enough? \_\_\_\_\_

## Answer Key

### Activity Worksheet 1: Italian Cheese Omelets

**Directions:** To celebrate the study of Bizet's *Doctor Miracle*, your grade level is having a party for 80. There will be 8 cooking stations to prepare the omelets. Compute the ingredients needed.

If the recipe serves 4 people, then to serve 80 people (80 divided by 4 = 20), you will need to multiply 20 X the amount of each ingredient.

1. Eggs 20 X 8 eggs = 160 eggs
2. Salt 20 X 1 tsp. = 20 tsp.
3. Parsley 20 X 1tbsp. = 20 tbsp.
4. Parmesan cheese 20 X ½ cups = 10 cups
5. Pepper to taste 8 shakers of pepper are needed = 1 shaker X 8 cooking stations
6. Oil 20 X ½ tbsp. = 10 tbsp.

Use answers in #1 - #6 to calculate what has to be purchased. Use the chart for conversions.

|                            |                                     |                          |
|----------------------------|-------------------------------------|--------------------------|
| 3 teaspoons = 1 tablespoon | 16 tablespoons = 1 cup              | 2 cups = 16 fluid ounces |
| 1 bunch of parsley = 1 cup | 1 pound of Parmesan cheese = 4 cups |                          |

7. If one dozen eggs are in a carton, how many cartons of eggs do you need to purchase?  
160 eggs divided by 12 eggs in a dozen = 13 cartons plus 4 more eggs need: 14 cartons of eggs
8. If one bunch of parsley equals 2 cups, how many bunches do you need?  
20 tbsp. divided by 16 = 1 cup plus 4 more tbsp. is less than 2 cups therefore 1 bunch is all you need
9. If one 26 oz. container of salt holds 491 servings at ¼ tsp. per serving, how many containers of salt, do you need?  
Only 1 container since you need 20 tsp. and 1 serving in the container of salt = ¼ tsp. and 4 X ¼ = 1 tsp. then 4 X 20 tsp. = 80 servings which is < than the 491 servings
10. How many pounds of Parmesan cheese?  
10 cups divided by 4 cups = 2 pounds plus 2 cups more = 2 ½ pounds needed
11. Will a 16.9 fluid ounce container of oil be enough?  
Yes, 10 tbsp. is less than 1 cup and since 2 cups = 16 fluid ounces, there is more than enough

## Answer Key

### Activity Worksheet 2: Italian Cheese Omelets

**Directions:** To celebrate the study of Bizet's *Doctor Miracle*, your grade level is having a party for 82. There will be 8 cooking stations to prepare the omelets. Compute the ingredients needed.

If the recipe serves 4 people, then to serve 82 people (82 divided by 4 = 20 and 1/2), you will need to multiply 20 1/2 X the amount of each ingredient.

1. Eggs 20 1/2 X 8 eggs = 164 eggs
2. Salt 20 1/2 X 1 tsp. = 20 1/2 tsp.
3. Parsley 20 1/2 X 1tbsp. = 20 1/2 tbsp.
4. Parmesan cheese 20 1/2 X 1/2 cups = 10 1/4 cups
5. Pepper to taste 8 shakers of pepper are needed = 1 shaker x 8 cooking stations
6. Oil 20 1/2 X 1/2 tbsp. = 10 1/4 tbsp.

Use answers in #1 - #6 to calculate what has to be purchased. Use the chart for conversions.

|                            |                                     |                          |
|----------------------------|-------------------------------------|--------------------------|
| 3 teaspoons = 1 tablespoon | 16 tablespoons = 1 cup              | 2 cups = 16 fluid ounces |
| 1 bunch of parsley = 1 cup | 1 pound of Parmesan cheese = 4 cups |                          |

7. If one dozen eggs are in a carton, how many cartons of eggs do you need to purchase? 164 eggs divided by 12 eggs in a dozen = 13.6 round up to 14 cartons of eggs
8. If one bunch of parsley equals 2 cups, how many bunches do you need? 20 1/2 tbsp. divided by 16 = 1.28 cups then 1 bunch is all you need
9. If one 26 oz. container of salt holds 491 servings at 1/4 tsp. per serving, how many containers of salt, do you need? Only 1 container since you need 20 1/2 tsp. and 1 serving in the container of salt = 1/4 tsp. and 4 X 1/4 = 1 tsp. then 4 X 20 1/2 tsp. = 82 servings is < than the 491 serving
10. How many pounds of Parmesan cheese? 10 1/2 cups needed divided by 4 cups = 2 5/8 pounds
11. Will a 16.9 fluid ounce container of oil be enough? Yes, because 16 tbsp. = 1 cup and 10 1/4 tbsp is what is needed which is less than 16 tbsp. There is more than 2 cups of oil in 16 fluid ounces.

## Answer Key

### Activity Worksheet 3: Italian Cheese Omelets

**Directions:** To celebrate the study of Bizet's *Doctor Miracle*, your grade level is having a party for 82. There will be 8 cooking stations to prepare the omelets. Compute the ingredients needed.

If the recipe serves 4 people, then to serve 82 people ( $82 \text{ divided by } 4 = \underline{20 \text{ and } \frac{1}{2}}$ ), you will need to multiply  $20 \frac{1}{2} \times$  the amount of each ingredient.

1. Eggs  $20 \frac{1}{2} \times 8 \text{ eggs} = 164 \text{ eggs}$
2. Salt  $20 \frac{1}{2} \times 1 \text{ tsp.} = 20 \frac{1}{2} \text{ tsp.}$
3. Parsley  $20 \frac{1}{2} \times 1 \text{tbsp.} = 20 \frac{1}{2} \text{tbsp.}$
4. Parmesan cheese  $20 \frac{1}{2} \times \frac{1}{2} \text{ cups} = 10 \frac{1}{4} \text{ cups}$
5. Pepper  $(1 \times 8 \text{ cooking stations}) 8 \text{ shakers}$
6. Oil  $20 \frac{1}{2} \times \frac{1}{2} \text{tbsp.} = 10 \frac{1}{4} \text{tbsp.}$

If the ingredients are going to be divided equally among the cooking stations, what amounts will be needed for each cooking station? Use answers in # 1 – 6 to compute your answers.

7. Eggs  $164 \text{ eggs divided by } 8 = 20 \frac{1}{2} \text{ round up to } 21 \text{ eggs}$
8. Salt  $20 \frac{1}{2} \text{ tsp. divided by } 8 = 2 \text{ and } \frac{9}{16} \text{ tsp.}$
9. Parsley  $20 \frac{1}{2} \text{tbsp. divided by } 8 = 2 \text{ and } \frac{9}{16} \text{tbsp.}$
10. Parmesan cheese  $10 \frac{1}{4} \text{ cups divided by } 8 = 1 \text{ cup plus } 2 \frac{1}{4} \text{ as a remainder ( } 2 \frac{1}{4} = \frac{9}{4}; \text{ divided among the } 8 \text{ stations is } \frac{1}{4} \text{ cup each plus a } \frac{1}{4} \text{ left over divided among } 8 \text{ stations is } \frac{1}{16} \text{ cup extra per station. Answer: } 1 \text{ and a heaping } \frac{1}{4} \text{ cup of cheese per station}$
11. Pepper (if you need 1 shaker per cooking station)  $1 \text{ shaker } \times 8 \text{ cooking stations} = 8 \text{ shakers}$
12. Oil  $10 \frac{1}{4} \text{tbsp. divided by } 8 = 1 \frac{1}{8} \text{tbsp.}$

Use answers in #1 - #6 to calculate what needs to be purchased. Use the chart for conversions.

|                            |                                     |                          |
|----------------------------|-------------------------------------|--------------------------|
| 3 teaspoons = 1 tablespoon | 16 tablespoons = 1 cup              | 2 cups = 16 fluid ounces |
| 1 bunch of parsley = 1 cup | 1 pound of Parmesan cheese = 4 cups |                          |

13. If one dozen of eggs are in a carton, how many cartons of eggs do you need to purchase?  $164 \text{ eggs divided by } 12 \text{ eggs in a dozen} = 13.6 \text{ round up to } 14 \text{ cartons of eggs}$
14. If one bunch of parsley equals 2 cups, how many bunches do you need?  $20 \frac{1}{2} \text{tbsp. divided by } 16 = 1.28 \text{ cups then } 1 \text{ bunch is all you need}$
15. If one 26 oz. container of salt holds 491 servings at  $\frac{1}{4}$  tsp. per serving, how many containers of salt, do you need?  $\text{Only } 1 \text{ container. Since you need } 20 \frac{1}{2} \text{ tsp. and } 1 \text{ serving in the container of salt} = \frac{1}{4} \text{ tsp. and } 4 \times \frac{1}{4} = 1 \text{ tsp. then } 4 \times 20 \frac{1}{2} \text{ tsp.} = 82 \text{ servings is } < \text{ than the } 491 \text{ serving}$
16. How many pounds of Parmesan cheese?  $10 \frac{1}{2} \text{ cups needed divided by } 4 \text{ cups} = 2 \frac{5}{8} \text{ pounds}$
17. Will a 16.9 fluid ounce container of oil be enough?  $\text{Yes, because } 16 \text{ tbsp.} = 1 \text{ cup and } 10 \frac{1}{4} \text{tbsp. (needed) is less than } 16 \text{ tbsp. which is less than } 1 \text{ cup the container holds } 2 \text{ cups} +$