

**Facts to Know**

The most common small unit of liquid measurement for daily use is a fluid ounce.

- A fluid ounce (fl. oz.) is equal to 6 teaspoons (tsp.) full of liquid.



**1 fluid ounce = 6 teaspoons**

- A fluid ounce is equal to 30 milliliters. An eye dropper holds about 1 milliliter. It would take 30 eye droppers to hold 1 fluid ounce.

**1 fluid ounce = 30 milliliters**

**Cups, Pints, Quarts, and Gallons**

- There are 8 fluid ounces in 1 cup. (1 c. = 8 fl. oz.)
- There are 16 fluid ounces in 1 pint. (1 pt. = 16 fl. oz.)
- There are 32 fluid ounces in 1 quart. (1 qt. = 32 fl. oz.)
- There are 128 fluid ounces in 1 gallon. (1 gal. = 128 fl. oz.)
- There are 2 cups in 1 pint. (1 pt. = 2 c.)
- There are 2 pints in 1 quart. (1 qt. = 2 pts.)
- There are 4 quarts in 1 gallon. (1 gal. = 4 qts.)

**Directions:** Use the information on page 33 to help you do these problems.

How many teaspoons would it take to fill:

1. 1 fluid ounce \_\_\_\_\_
2. 2 fluid ounces \_\_\_\_\_
3. 4 fluid ounces \_\_\_\_\_
4. 8 fluid ounces \_\_\_\_\_
5. 5 fluid ounces \_\_\_\_\_
6. 12 fluid ounces \_\_\_\_\_

**Directions:** Use a 1-ounce cup to fill a variety of cups and bottles with water. Number the cups and bottles. Record the amount held by each cup or bottle.

7. \_\_\_\_\_ fluid ounces
8. \_\_\_\_\_ fluid ounces
9. \_\_\_\_\_ fluid ounces
10. \_\_\_\_\_ fluid ounces
11. \_\_\_\_\_ fluid ounces
12. \_\_\_\_\_ fluid ounces
13. \_\_\_\_\_ fluid ounces
14. \_\_\_\_\_ fluid ounces

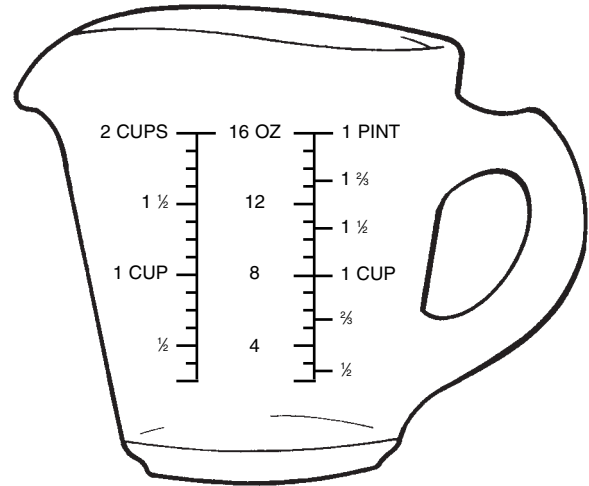
**Directions:** Use the information on page 33 to help you do these problems.

15. How many fluid ounces are in 1 cup? \_\_\_\_\_ fl. oz.
16. How many fluid ounces would 3 cups hold? \_\_\_\_\_ fl. oz.
17. How many fluid ounces would 4 cups hold? \_\_\_\_\_ fl. oz.
18. How many fluid ounces would 6 cups hold? \_\_\_\_\_ fl. oz.
19. How many fluid ounces would 8 cups hold? \_\_\_\_\_ fl. oz.
20. How many fluid ounces would 10 cups hold? \_\_\_\_\_ fl. oz.
21. How many fluid ounces would 40 cups hold? \_\_\_\_\_ fl. oz.

**Directions:** Use the information on page 33 to help you do these problems.

How many fluid ounces would it take to fill:

1. 1 cup = \_\_\_\_\_ fluid ounces
2. 2 cups = \_\_\_\_\_ fluid ounces
3. 3 cups = \_\_\_\_\_ fluid ounces
4. 4 cups = \_\_\_\_\_ fluid ounces
5. 5 cups = \_\_\_\_\_ fluid ounces
6. 7 cups = \_\_\_\_\_ fluid ounces
7. 8 cups = \_\_\_\_\_ fluid ounces
8. 10 cups = \_\_\_\_\_ fluid ounces



9. A recipe for oatmeal requires 4 cups of water. How many fluid ounces of water are needed? \_\_\_\_\_ fl. oz.
10. A recipe for spaghetti requires 48 fluid ounces of water to cook the spaghetti. How many cups of water are needed? \_\_\_\_\_ cups
11. A pizza recipe requires  $1\frac{1}{2}$  cups of tomato sauce. How many fluid ounces of tomato sauce are needed? \_\_\_\_\_ fl. oz.
12. A recipe for chili calls for 2 quarts of water to cook the beans. How many fluid ounces are required? \_\_\_\_\_ fl. oz.
13. A recipe for soup for a Scout troop requires 2 gallons of water in which to boil the mix. How many fluid ounces are needed? \_\_\_\_\_ fl. oz.
14. The Scout troop also needs punch. The recipe calls for 5 cups of water. How many fluid ounces are in 5 cups? \_\_\_\_\_ fl. oz.

### Challenge

15. A recipe calls for 1 gallon of water, 1 quart of milk, 1 pint of syrup, and 1 cup of juice. How many fluid ounces does the recipe require? \_\_\_\_\_ fl. oz.
16. A recipe calls for 2 gallons of milk, 2 quarts of soup broth, and 2 pints of water. How many fluid ounces does the recipe require? \_\_\_\_\_ fl. oz.



# Answer Key (cont.)

## Page 32

1. 214° F
2. 189° F
3. 147° F
4. 265° F
5. 219° F

## Page 34

1. 6 tsp.
2. 12 tsp.
3. 24 tsp.
4. 48 tsp.
5. 30 tsp.
6. 72 tsp.
7. Answers will vary.
8. Answers will vary.
9. Answers will vary.
10. Answers will vary.
11. Answers will vary.
12. Answers will vary.
13. Answers will vary.
14. Answers will vary.
15. 8 fl. oz.
16. 24 fl. oz.
17. 32 fl. oz.
18. 48 fl. oz.
19. 64 fl. oz.
20. 80 fl. oz.
21. 320 fl. oz.

## Page 35

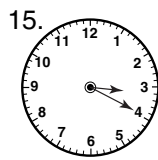
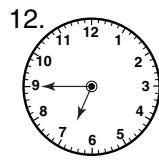
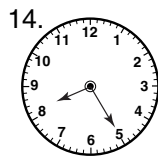
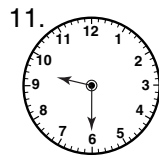
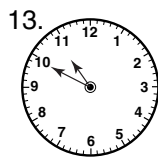
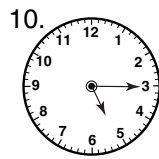
1. 8 fl. oz.
2. 16 fl. oz.
3. 24 fl. oz.
4. 32 fl. oz.
5. 40 fl. oz.
6. 56 fl. oz.
7. 64 fl. oz.
8. 80 fl. oz.
9. 32 fl. oz.
10. 6 cups
11. 12 fl. oz.
12. 64 fl. oz.
13. 256 fl. oz.
14. 40 fl. oz.
15. 184 fl. oz.
16. 352 fl. oz.

## Page 36

1. 4 cups
2. 8 cups
3. 16 cups
4. 16 cups
5. 4 cups
6. 32 cups
7. 8 cups
8. 24 cups
9. 10 cups
10. 10 cups
11. 2 pints
12. 4 pints
13. 6 pints
14. 8 pints
15. 14 pints
16. 16 pints
17. 4 pints
18. 24 pints
19. 10 pints
20. 7 pints
21. 6 quarts
22. 10 quarts
23. 80 pints
24. 120 pints
25. 160 quarts
26. 36,000 quarts;  
72,000 pints

## Page 38

1. 6:05
2. 6:15
3. 12:00
4. 5:10
5. 11:30
6. 8:45
7. 3:20
8. 9:35
9. 2:50



## Page 39

1. A.M.
2. P.M.
3. P.M.
4. A.M.
5. P.M.
6. P.M.
7. P.M.
8. P.M.
9. A.M.
10. A.M.
11. P.M.
12. P.M.

## Page 40

1. 3 hr. 15 min.
2. 3 hr. 45 min.
3. 2 hr. 30 min.
4. 4 hr. 45 min.
5. 3 hr. 35 min.
6. 6 hr. 25 min.
7. 2 hr. 30 min.
8. 6 hr. 30 min.
9. 2 hr. 15 min.
10. 1 hr. 5 min.
11. 2 hr. 30 min.
12. 5 hr. 30 min.
13. 2 hr. 15 min.
14. 4 hr. 10 min.
15. 3 hr.
16. 8 hr.
17. 7 hr.
18. 7 hr. 30 min.
19. 13 hr.
20. 10 hr. 45 min.

Challenge: 18 hr. 16 min.

## Page 41

1. 5 miles
2. 4 miles
3. 10 miles
4. 6 miles
5. 30 miles
6. 20 m.p.h. faster
7. 12 m.p.h. faster
8. 23 m.p.h. faster
9. 10 miles
10. 32 days

## Page 42

1. 3 m.p.h.
2. 2 m.p.h.
3. 40 m.p.h.
4. 40 m.p.h.
5. 30 m.p.h.
6. 5 m.p.h.
7. 40 m.p.h.
8. 15 m.p.h.
9. 4 m.p.h.
10. 4 m.p.h.

## Page 43

1. 3 weeks
  2. 4 Fridays
  3. 4 Sundays
  4. 31 days
  5. 22; Monday
  6. 7; Wednesday
  7. No; it has too many days
  8. No; June has only 30 days
  9. Yes; July has 31 days
  10. 31; Wednesday
- Challenge: 19; Monday

## Page 44

1. 2 leap years
2. April
3. July
4. October
5. 13 weeks
6. 91 days
7. 20 leap years
8. 1,461 days
9. 30 days
10. 84 days
11. 60th day
12. 306 days
13. 185th or 186th day
14. 180 days
15. 7 leap years

## Page 46

Answers will vary.