

# Chapter Quiz

Find each unit rate. Round to the nearest hundredth if necessary.

- 325 meters in 28 seconds
- 128 pounds of dog food for 16 dogs
- The costs of different sizes of bottled sport drink are shown. Which bottle costs the least per ounce?

Size	8 oz	16 oz	24 oz	32 oz
Price	\$0.89	\$1.09	\$1.89	\$2.39

Simplify.

4.  $\frac{\frac{3}{4}}{2}$

5.  $\frac{6}{\frac{2}{3}}$

6.  $\frac{4}{\frac{1}{5}}$

- DRIVE** Rupert drove home at an average rate of 58 miles per hour. Find his rate in feet per second. Round to the nearest tenth.

Determine if the situations represent proportional relationships. Then explain your reasoning.

- JOBS** The table shows the amount Maggie earns each hour she babysits.

Earnings (\$)	12	18	24
Time (h)	2	3	4

- SHAMPOO** The table shows the cost of shampoo at a discount store.

Cost (\$)	2.95	4.50	6.05
Number of Bottles	1	2	3

- Myra can fill 18 glasses with 2 containers of iced tea. How many glasses can she fill with 3 containers of tea?

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

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

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

4. \_\_\_\_\_

5. \_\_\_\_\_

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

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

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

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

10. \_\_\_\_\_

# Chapter Quiz

Find each number. Round to the nearest tenth if necessary.

- 1. 20% of 70 1. \_\_\_\_\_
- 2. 28.2% of 92 2. \_\_\_\_\_
- 3. 60% of 68 is what number? 3. \_\_\_\_\_
- 4. 25% of 96 is what number? 4. \_\_\_\_\_

Estimate.

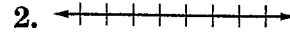
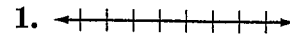
- 5. 8% of 40 5. \_\_\_\_\_
- 6. 24% of 60 6. \_\_\_\_\_

Write an equation for each problem. Then solve. Round to the nearest tenth if necessary.

- 7. What number is 8% of 50? 7. \_\_\_\_\_
- 8. 52 is what percent of 260? 8. \_\_\_\_\_
- 9. 30 is 75% of what number? 9. \_\_\_\_\_
- 10. What is 15% of 24? 10. \_\_\_\_\_
- 11. Tiffany answered 90% of the questions on her math test correctly. There were 50 questions on the test. How many questions did Tiffany answer correctly? 11. \_\_\_\_\_
- 12. Jerilyn made 40 treats for her birthday. She gave 4 away to her family before taking the rest to school. What percent did she give away to her family? 12. \_\_\_\_\_

# Chapter Quiz

- Graph the set of integers  $\{-2, -5, 1\}$  on a number line.
- Graph the set of integers  $\{4, -3, 2\}$  on a number line.



Write an integer for each situation.

3.  $15^{\circ}\text{F}$  below 0

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

4. a deposit of \$24

4. \_\_\_\_\_

Evaluate each expression.

5.  $|-3|$

5. \_\_\_\_\_

6.  $|9|$

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

7.  $|13| + |-2|$

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

8.  $|-12| - |8|$

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

Add or subtract.

9.  $12 + (-7)$

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

10.  $-9 + 8$

10. \_\_\_\_\_

Evaluate each expression if  $f = -4$ ,  $g = 2$ , and  $h = 7$ .

11.  $-h - 3$

11. \_\_\_\_\_

12.  $h - f$

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

13. TUNNEL A mine worker is in a tunnel 25 feet below the ground. He descends another 13 feet. What is his final position?

13. \_\_\_\_\_

# Chapter Quiz

Write each fraction or mixed number as a decimal. Use bar notation if the decimal is a repeating decimal.

1.  $2\frac{5}{8}$

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

2.  $\frac{7}{9}$

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

3.  $\frac{3}{4}$

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

Replace each  $\odot$  with  $<$ ,  $>$ , or  $=$  to make a true sentence.

4.  $\frac{24}{30} \odot \frac{45}{50}$

4. \_\_\_\_\_

5.  $\frac{6}{17} \odot \frac{18}{51}$

5. \_\_\_\_\_

Add or subtract. Write in simplest form.

6.  $\frac{5}{7} + \frac{3}{7}$

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

7.  $\frac{7}{12} + \frac{3}{4}$

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

8.  $-\frac{3}{5} - \frac{1}{5}$

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

9.  $\frac{5}{8} - \frac{3}{16}$

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

10. **HOMEWORK** Honon spent  $3\frac{1}{4}$  hours on homework yesterday while Sequoia spent  $2\frac{5}{6}$  hours on homework. How much more time did Honon spend on homework than Sequoia?

10. \_\_\_\_\_

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# Chapter Quiz

Evaluate each expression if  $a = 3$ ,  $b = 5$ , and  $c = 1$ .

1.  $b - c$

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

2.  $ac + b$

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

3.  $\frac{2(b + c)}{a}$

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

Use the Distributive Property to evaluate each expression.

4.  $4(9 + 1)$

4. \_\_\_\_\_

5.  $-5(6 + x)$

5. \_\_\_\_\_

Name the property shown by each statement.

6.  $c \times 1 = c$

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

7.  $83 + (52 + 17) = (83 + 52) + 17$

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

8.  $22 + b + 18 = b + 22 + 18$

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

9. **JOGGING** Roberta jogs 3 laps the first day, 5 laps the second day, 7 laps the third day, and so on. On which day will Roberta jog 13 laps if the pattern continues?

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

Describe the relationship between the terms in each arithmetic sequence. Then write the next three terms in each sequence.

10. 2, 9, 16, 23, ...

10. \_\_\_\_\_

11. 50, 53, 56, 59, ...

11. \_\_\_\_\_

12. 0.2, 0.6, 1.0, 1.4, ...

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

13. 81, 90, 99, 108, ...

13. \_\_\_\_\_

# Chapter Quiz

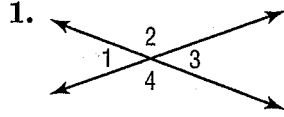
Solve each equation. Check your solution.

- |                                                                                                                                                                                                                                              |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1. $t + 7 = 5$                                                                                                                                                                                                                               | 1. _____  |
| 2. $a - 3 = 9$                                                                                                                                                                                                                               | 2. _____  |
| 3. $-4 = p - 6$                                                                                                                                                                                                                              | 3. _____  |
| 4. $y + 19 = 26$                                                                                                                                                                                                                             | 4. _____  |
| 5. $3x = -12$                                                                                                                                                                                                                                | 5. _____  |
| 6. $20 = 4n$                                                                                                                                                                                                                                 | 6. _____  |
| 7. $2.1d = 51.24$                                                                                                                                                                                                                            | 7. _____  |
| 8. $\frac{3}{4}x = -12$                                                                                                                                                                                                                      | 8. _____  |
| 9. $\frac{5}{2}c = 8\frac{1}{3}$                                                                                                                                                                                                             | 9. _____  |
| 10. $3y + 8 = 14$                                                                                                                                                                                                                            | 10. _____ |
| 11. $2m - 5 = 17$                                                                                                                                                                                                                            | 11. _____ |
| 12. $3x - 2.6 = x + 8.2$                                                                                                                                                                                                                     | 12. _____ |
| 13. <b>PLUMBER</b> Abe, a plumber, charges \$50 per hour plus \$75 for making an in-home visit. The Plumbing Service charges \$65 per hour but no set fee for a visit. How many hours of plumbing work are needed for each to cost the same? | 13. _____ |
| 14. <b>BROWNIES</b> Lauren brings brownies to class one day. She gives $\frac{3}{5}$ of them to her friends Gareth, Tammy, and Camilla. If she gave them 21 brownies, how many did she bring to class?                                       | 14. _____ |

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# Chapter Quiz

Identify a pair of vertical angles.

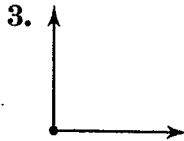


1. \_\_\_\_\_

Classify each angle as *acute*, *obtuse*, *right*, or *straight*.

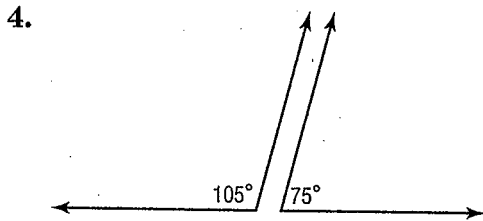


2. \_\_\_\_\_

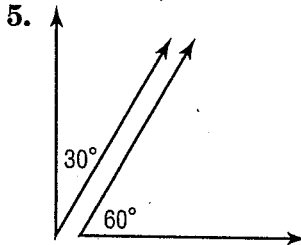


3. \_\_\_\_\_

Classify each pair of angles as *complementary*, *supplementary*, or *neither*.

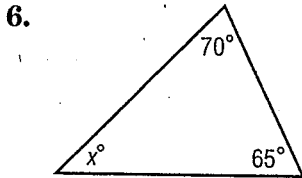


4. \_\_\_\_\_

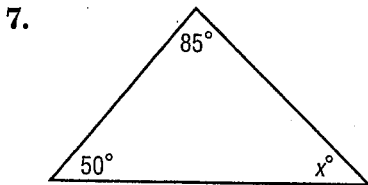


5. \_\_\_\_\_

Classify each triangle as *acute*, *right*, or *obtuse*. Then find the value of  $x$  in each figure.



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



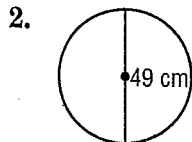
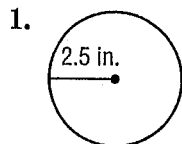
7. \_\_\_\_\_

8. **PLAYGROUND** The school playground is in the shape of a pentagon. There is a drinking fountain at each of the 5 corners of the playground. How many ways can someone walk from one drinking fountain to another drinking fountain?

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

# Chapter Quiz

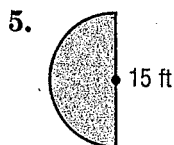
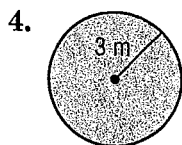
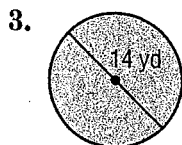
Find the circumference of each circle. Round to the nearest tenth. Use 3.14 or  $\frac{22}{7}$  for  $\pi$ .



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

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

Find the area of each figure. Round to the nearest tenth. Use 3.14 or  $\frac{22}{7}$  for  $\pi$ .

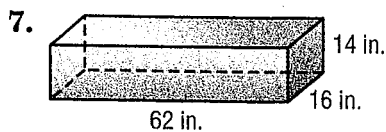
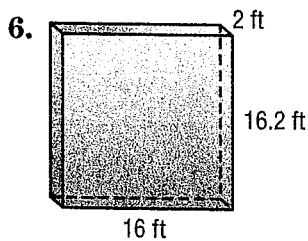


3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

Find the volume of each figure. Round to the nearest tenth if necessary.



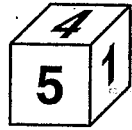
6. \_\_\_\_\_

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



# Chapter Quiz

For Exercises 1 and 2, a number cube labeled one through six is rolled.



1. Find  $P(2 \text{ or } 4)$ . 1. \_\_\_\_\_
2. Find  $P(\text{greater than } 2)$ . 2. \_\_\_\_\_
3. A number cube is rolled. Find the probability of not getting an even number. 3. \_\_\_\_\_
4. Brenda can choose between 2 pairs of pants and 3 shirts. How many outfits are possible? 4. \_\_\_\_\_

A spinner with four equal-size sections marked M, A, T, and H is spun 100 times. The results are shown below.

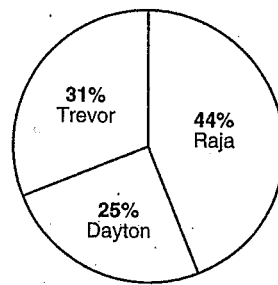
Section	Frequency
M	21
A	26
T	25
H	28

5. What is the theoretical probability of landing on A? 5. \_\_\_\_\_
6. What is the experimental probability of landing on a vowel? 6. \_\_\_\_\_
7. Compare the theoretical probability to the experimental probability of landing on H. 7. \_\_\_\_\_
8. Manny rolls a number cube labeled 1 through 6 and spins a spinner with four equal sections, labeled 1, 2, 3, and 4. If both numbers are odd, he wins. Otherwise, Gabriel wins. Use a list to find the sample space. Then find the probability that Gabriel wins. 8. \_\_\_\_\_
9. Describe a model that you could use to simulate the outcome of guessing the correct answers to a 25-question true-false test. 9. \_\_\_\_\_

# Chapter Quiz

1. Based on the circle graph, how many more students voted for Raja than for Dayton if 300 students voted?

Votes for Vice-President



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

2. Find the mean, median, and mode of the refrigerator prices shown in the table. Which measurement might be misleading in describing the average cost of a refrigerator?

Refrigerator Prices	
Refrigerator Name	Cost
Quick Freeze	\$1,200
Stay Cool	\$1,400
Everfrost	\$1,200
Cool and Fresh	\$400
Thompson Stainless	\$1,350

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

3. A survey found that 78% of students do their homework before 10:00 P.M. Predict how many students out of 975 do their homework before 10:00 P.M.
4. Suppose 11 out of 17 students said they were attending the football game. How many students out of 475 would you expect to attend the football game?

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

4. \_\_\_\_\_

**Determine whether each conclusion is valid. Justify your answer.**

5. Mr. Dotson wants to know if the neighbors on his street would be interested in a community watch. He surveys every fourth household on the street and concluded that 70% would be interested.
6. Malaya wrote a survey question in the newspaper about changing the school colors. Ninety percent of those who responded in an e-mail said they should be changed. She concludes that 90% of the student body wants the colors changed.

5. \_\_\_\_\_

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