

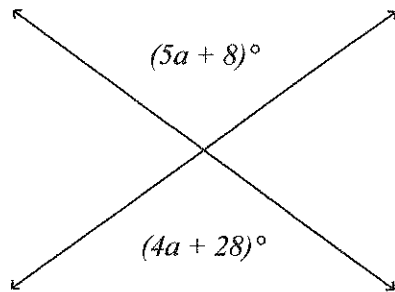
Algebra--Chapter 2 Test REVIEW**Multiple Choice**

Identify the letter of the choice that best completes the statement or answers the question.

Solve the equation.

- _____ 1. $-21 = b - 37$
a. -16 b. -58 c. 16 d. 58
- _____ 2. $k + 0.9 = 1.5$
a. -2.4 b. -0.6 c. 2.4 d. 0.6
- _____ 3. $\frac{y}{4} = -8$
a. 32 b. -2 c. -32 d. -12
- _____ 4. $\frac{3}{8}x = 18$
a. 41 b. 52 c. 48 d. 23
- _____ 5. $8d = -24$
a. 3 b. -4 c. -3 d. -5
- _____ 6. $11 = -d + 6$
a. -12 b. -7 c. -5 d. 5
- _____ 7. $2 = \frac{10 + z}{-3}$
a. -4 b. -16 c. 15 d. -5
- _____ 8. $5(y + 7) = 50$
a. 5 b. -17 c. 17 d. 3
- _____ 9. $5x - 9 = 3x - 3$
a. 0 b. 1 c. 6 d. 3
- _____ 10. $5d - 4d - 3d - 9 = 4d$
a. $\frac{9}{2}$ b. 0 c. $\frac{3}{2}$ d. 8
- _____ 11. $\frac{4}{5}x - 3 = 2$
a. $-\frac{6}{4}$ b. $\frac{3}{4}$ c. 4 d. $\frac{1}{6}$

- _____ 12. Steven wants to buy a \$480 bicycle. Steven has no money saved, but will be able to deposit \$40 into a savings account when he receives his paycheck each Friday. However, before Steven can buy the bike, he must give his sister \$80 that he owes her. For how many weeks will Steven need to deposit money into his savings account before he can pay back his sister and buy the bike?
- a. 14 weeks b. 13 weeks c. 15 weeks d. 17 weeks
- _____ 13. John and 4 friends are going out for pizza for lunch. They split one pizza and 5 large drinks. The pizza cost \$10.50. After using a \$4.00 gift certificate, they spend a total of \$15.00. Write an equation to model this situation, and find the cost of one large drink.
- a. $5d - \$10.50 + \$4.00 = \$15.00$; \$5.38
 b. $5d + \$10.50 - \$4.00 = \$15.00$; \$1.70
 c. $4d + \$10.50 - \$4.00 = \$15.00$; \$2.13
 d. $5d + \$10.50 - \$4.00 = \$15.00$; \$1.85
- _____ 14. a. Find the value of a .
 b. Find the value of the marked angles.



not drawn to scale

- a. 24; 128° b. 20; 108° c. 19; 103° d. 21; 113°
- _____ 15. Which equation is an identity?
- a. $6m - 4 = 7m + 7 - m$ c. $3y + 3 = 3y - 4$
 b. $7w + 8 - w = 8w - 2(w - 4)$ d. $8 - (6v + 5) = -6v - 3$
- _____ 16. The length of a rectangle is 3 centimeters less than twice its width. The perimeter of the rectangle is 30 cm. What are the dimensions of the rectangle?
- a. length = 6 cm; width = 9 cm c. length = 13 cm; width = 8 cm
 b. length = 9 cm; width = 6 cm d. length = 8 cm; width = 7 cm
- _____ 17. Carlos and Maria drove a total of 217 miles in 4 hours. Carlos drove the first part of the trip and averaged 53 miles per hour. Maria drove the remainder of the trip and averaged 55 miles per hour. For approximately how many hours did Maria drive? Round your answer to the nearest tenth if necessary.
- a. 1.5 hours b. 1.3 hours c. 2.9 hours d. 2.5 hours

- _____ 18. At 9:00 on Saturday morning, two bicyclists heading in opposite directions pass each other on a bicycle path. The bicyclist heading north is riding 4 km/hour faster than the bicyclist heading south. At 10:15, they are 27.5 km apart. Find the two bicyclists' rates.
- northbound bicyclist = 14 km/h; southbound bicyclist = 9 km/h
 - northbound bicyclist = 16 km/h; southbound bicyclist = 12 km/h
 - northbound bicyclist = 13 km/h; southbound bicyclist = 8 km/h
 - northbound bicyclist = 13 km/h; southbound bicyclist = 9 km/h
- _____ 19. The formula for converting degrees Celsius (C) to degrees Fahrenheit (F) is $F = \frac{9}{5}C + 32$. Solve the formula for degrees Celsius (C). Then find the temperature in degrees Celsius (C) when the temperature in degrees Fahrenheit (F) is -22 .
- $-17^{\circ}C$
 - $-39^{\circ}C$
 - $-25^{\circ}C$
 - $-30^{\circ}C$
- _____ 20. Your math teacher allows you to choose the most favorable measure of central tendency of your test scores to determine your grade for the term. On six tests you earn scores of 86, 79, 74, 86, 92, and 81. What is your grade to the nearest whole number, and which measure of central tendency should you choose?
- 86; the mode
 - 86; the mean
 - 83; the mode
 - 84; the median

Write and solve an equation to find the value of the variable.

- _____ 21. 91, 108, 102, 124, x ; mean = 110
- 128
 - 125
 - 123
 - 127
- _____ 22. Find the mean and range.
- 34 11 30 27 12 12 12 22
- mean = 18.9; range = 20
 - mean = 20; range = 24
 - mean = 20; range = 23
 - mean = 20.6; range = 23

23. Make a stem-and-leaf plot for the following set of data.

1.1, 1.3, 1.7, 2.2, 2.2, 2.5, 3.1, 3.3

a.

Stem	Leaf
1	1 3
2	2 2 5
3	1 3

1 | 1 = 1.1

b.

Stem	Leaf
1	0.1 0.3 0.7
2	0.2 0.2 0.5
3	0.1 0.3

1 | 0.1 = 1.01

c.

Stem	Leaf
1	7 3 1
2	5 2 2
3	3 1

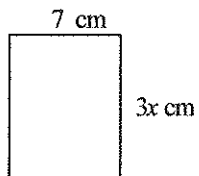
1 | 7 = 1.7

d.

Stem	Leaf
1	1 3 7
2	2 2 5
3	1 3

1 | 1 = 1.1

24. The perimeter of the rectangle is 32 cm. Find the value of x .



a. $\frac{32}{21}$

b. 22

c. 16

d. 3

Solve the equation for the given variable.

25. $4.1t - 5.5m = 13; t$

a. $t = \frac{5.5m + 13}{4.1m}$

b. $t = \frac{5.5m + 13}{4.1}$

c. $t = 5.5m + 13$

d. $t = \frac{5.5m - 13}{4.1}$