Name_____ Date_____

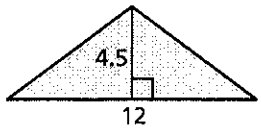
Test 2 End-of-Course Test

Simplify the expression. Identify the properties used.

1. $4(x + 3)$

2. $(3.5 \bullet x) \bullet 4$

3. Use a formula to find the area of the figure.



4. Tickets to a basketball game cost \$3.50 for adults and \$2 for children. Write an expression that gives the total cost for a adults and c children to attend the game. What is the total cost for a family of 2 adults and 3 children to attend the game?

Perform the indicated operation.

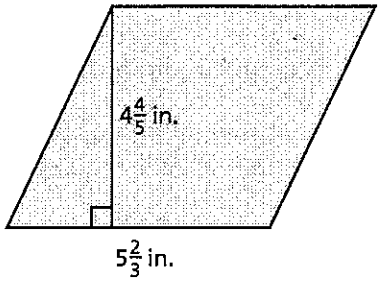
5. $\frac{3}{7} \times \frac{4}{6}$

6. $4\frac{3}{5} \div \frac{1}{8}$

7. 0.45×3.2

8. $0.35\overline{)1.61}$

9. Find the area of the parallelogram.



Evaluate the expression.

10. $4 + 10 \div 2$

11. $7^2 - 3 \times 4$

12. $(8 - 5)^3 - 3(1 + 2)$

13. $7 + 3(12 \div 4) - 3^2$

14. A recipe for a batch of 3 dozen chocolate chip cookies calls for $3\frac{1}{2}$ cups of flour, 1 cup of sugar, and $2\frac{3}{4}$ cups of chocolate chips. How much of each ingredient should be used to make 2 dozen cookies?

15. Find the area of the polygon with vertices of $A(2, 2)$, $B(2, 7)$, $C(8, 7)$, and $D(4, 2)$.

16. The ages of people on a jury are 56, 52, 42, 50, 58, 61, 38, 55, 69, 66, 56, and 46. Make a stem-and-leaf plot of the data.

Answers

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. See left.

Copyright © Big Ideas Learning, LLC
All rights reserved.

Name _____ Date _____

Test 2

End-of-Course Test (continued)

Order the integers from least to greatest.

17. 9, –3, 6, –2, –5

18. –8, –2, 4, 2, –1

19. A twelve-pack of juice costs $3.90. An eighteen-pack costs $5.49. Which is the better buy?

Write the fraction or mixed number as a percent.

20. $\frac{5}{8}$

21. $\frac{21}{5}$

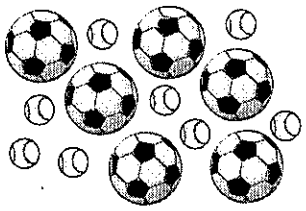
22. $2\frac{3}{25}$

23. Chris, Mary Beth, and Allison are discussing the number of votes received by a candidate running for office. Chris says that approximately 46.2% of the votes went to the candidate, Mary Beth says that 231 out of every 500 votes went to the candidate, and Allison says that 0.462 of the votes went to the candidate. Are they in agreement? Explain your reasoning.

24. How many vertices does a rectangular pyramid have?

25. A pizza shop offers 30% off the price of a large pizza every Tuesday night. If the regular price is $25.50, what is the discounted price?

26. Write the ratio of baseballs to soccer balls. Explain what the ratio means.



27. You run 5 miles in 1 hour. At this rate, how long will it take you to run a marathon (approximately 26 miles)?

28. Determine the mean, median, mode(s), IQR, and range for the data.

12, 12, 10, 8, 9, 9, 9, 11, 11, 8

29. Katie makes 65% of her shots from the free-throw line. Can you determine how many consecutive free-throws she must make in order to increase her percentage to 68%? Explain.

Answers

17. _____

18. _____

19. _____

20. _____

21. _____

22. _____

23. _____

24. _____

25. _____

26. _____

27. _____

28. _____

29. _____

Copyright © Big Ideas Learning, LLC
All rights reserved.

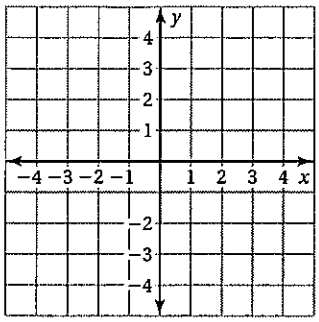
Name _____ Date _____

Test 2 End-of-Course Test (continued)

Plot the ordered pair in the coordinate plane.

30. $(1, -3)$ **31.** $(-2, 4)$

32. $(0, -2)$ **33.** $(-4, -3)$

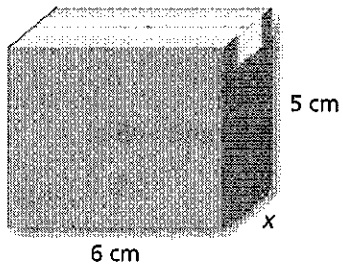


Solve the equation.

34. $\frac{3}{4}s = 12$ **35.** $2.5c = 20$

36. A farmer builds a fence to enclose a rectangular pasture. He uses 155 feet of fence. Find the total area of the pasture if it is 45.5 feet long.

37. Write and solve an equation to find the width of the box if its volume is 80 cubic centimeters. Then find its surface area.



38. The prices of backpacks at a store are \$26, \$22, \$31, \$18, \$24, \$22, \$19, and \$30. Find the mean absolute deviation of the prices.

Write the word sentence as an inequality.

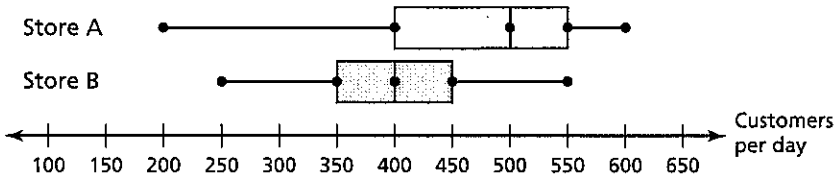
39. A number w is less than 5.5. **40.** A number m is at least 7.

Determine whether the question is a statistical question. Explain.

41. How much does a 10-fluid ounce bottle of perfume cost?

42. Who was the President of the United States in 2010?

Use the box-and-whisker plot to answer the question.



43. How often does Store A have 550 or more customers per day?

44. Identify the shape of each distribution.

45. Which store has more customers?

Answers

30. See left.
31. See left.
32. See left.
33. See left.
34. _____
35. _____
36. _____
37. _____
38. _____
39. _____
40. _____
41. _____
42. _____
43. _____
44. _____
45. _____

Copyright © Big Ideas Learning, LLC
All rights reserved.

Name _____ Date _____

Test 2 End-of-Course Test (continued)

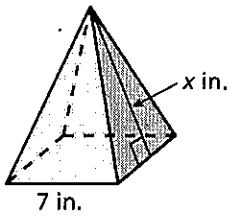
Find the GCF of the numbers.

46. 20, 150

47. 42, 105

48. You have piano lessons every fifth day and cooking lessons every sixth day. Today you have both lessons. In how many days will you have both lessons on the same day again?

49. The surface area of a square pyramid is 189 square inches. The side length of the base is 7 inches. What is the value of x?



Find the missing values in the ratio table.

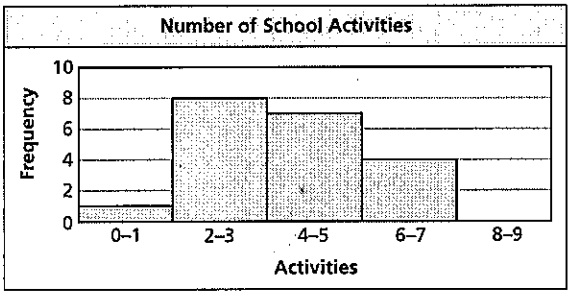
50.

Boys	3	9	
Girls	7		42

51.

Feet	72	57	
Yards	24		13

In Exercises 52–54, use the histogram that shows the number of school activities that students are involved in during the year.



52. Which interval contains the fewest data values?

53. How many students are there?

54. Determine the percent of students that are involved in at least 4 or 5 activities.

Answers

46. _____

47. _____

48. _____

49. _____

50. See left.

51. See left.

52. _____

53. _____

54. _____

Copyright © Big Ideas Learning, LLC
All rights reserved.