$\qquad$

## Summer <br> Review <br> Entering Pre-Algebra-7

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. $\frac{3}{7} \times \frac{4}{6} \quad$ 6. $4 \frac{3}{5} \div \frac{1}{8}$
6. $0.45 \times 3.2$
7. $0 . 3 5 \longdiv { 1 . 6 1 }$
8. 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. $\qquad$
2. $\qquad$
3. $\qquad$
4. $\qquad$
5. $\qquad$
6. $\qquad$
7. $\qquad$
8. $\qquad$
9. $\qquad$
10. $\qquad$
11. $\qquad$
12. $\qquad$
13. $\qquad$
14. $\qquad$
$\qquad$
$\qquad$
15. $\qquad$
16. $\qquad$
$\qquad$

## Summer <br> Review <br> Entering Pre-Algebra-7

## 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. $\qquad$
18. $\qquad$
19. $\qquad$
20. $\qquad$
21. $\qquad$
22. $\qquad$
23. $\qquad$
$\qquad$
$\qquad$
$\qquad$
24. $\qquad$
25. $\qquad$
26. $\qquad$
$\qquad$
27. $\qquad$
28. $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
29. $\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Summer <br> Review <br> Entering Pre-Algebra-7

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?

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. $2.5 c=20$

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. surface area.


## Answers

30. $\qquad$ See left.
31. $\qquad$
32. $\qquad$
33. $\qquad$
34. $\qquad$
35. $\qquad$
36. $\qquad$
37. $\qquad$
5 cm
38. Write and solve an equation to find the width of the box if its volume is 80 cubic centimeters. Then find its
39. $\qquad$
40. $\qquad$
41. $\qquad$
42. $\qquad$
$\qquad$
43. $\qquad$
44. $\qquad$
45. $\qquad$
46. $\qquad$
$\qquad$

## Summer <br> Review <br> Entering Pre-Algebra-7

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.

## Answers

46. $\qquad$
47. $\qquad$
48. $\qquad$
49. $\qquad$
50. $\qquad$
51. $\qquad$
52. $\qquad$
53. $\qquad$
54. $\qquad$
55. 

| 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.
$\qquad$

## Summer <br> Review <br> Entering Pre-Algebra-7

## Order the numbers from least to greatest.

55. $-|-1|, 0,|-2|,-5,-4$
56. $\frac{17}{2},-6.7,-\frac{28}{5}, 8.2$

## Simplify the expression.

57. $2-(-5)$
58. $-2.5(6)$
59. $-\frac{2}{5}+\frac{7}{10}$
60. $2 \frac{1}{8} \bullet\left(-\frac{6}{5}\right)$
61. $-12.88 \div 2.8$
62. On an exam you get two points for each question answered correctly, zero points for each question left blank, and lose one-half point for each question answered incorrectly. What is your total score on the exam if you answer 13 questions correctly, leave 7 questions blank, and answer 5 questions incorrectly?

Solve.
66. $x+3 \frac{2}{5}=2 \frac{1}{6}$
67. $-0.25 a+3.8=4.6$
68. A pencil costs $\$ 0.27$ and a pen costs $\$ 0.32$. You buy six pencils and the total cost is $\$ 4.18$. How many pens did you buy?
69. 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.
70. The table shows the time in minutes $m$ to download $s$ songs. How long does it take to download one song?

| Minutes | 0.5 | 1.5 | 2.5 |
| :--- | :---: | :---: | :---: |
| Songs | 2 | 6 | 10 |

## Answers

55. $\qquad$
56. $\qquad$
57. $\qquad$
58. $\qquad$
59. $\qquad$
60. $\qquad$
61. $\qquad$
62. $\qquad$
63. $\qquad$
64. $\qquad$
65. $\qquad$
66. $\qquad$
67. $\qquad$
68. $\qquad$
69. $\qquad$
70. $\qquad$
