

Name _____



End-of-Course Test

Answers

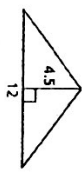
MATH 6 ACCELERATED EXTRA CREDIT
ALL WORK MUST BE SHOWN
ON A SEPARATE SHEET OF
PAPER.

KEY

- Simplify the expression. Identify the properties used.
- $4(x + 3)$
 - $(3 \cdot 5 \cdot x) \cdot 4$

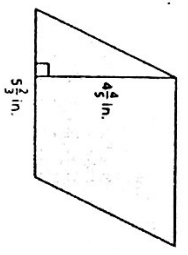
- Use a formula to find the area of the figure.

- 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.
- $\frac{3}{7} \times \frac{4}{6}$
 - $6 \cdot \frac{4^2}{5} + \frac{1}{8}$
 - 0.45×3.2
 - $0.35 \sqrt{1.61}$

- Find the area of the parallelogram.



Evaluate the expression.

- $4 + 10 + 2$
- $(8 - 5)^3 - 3(1 + 2)$
- $7^2 - 3 \times 4$
- $7 + 3(12 + 4) - 3^2$

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

Ages of People
Stem | Leaf
3 | 8
4 | 2, 6
5 | 0, 2, 5, 6, 8
6 | 1, 6, 9

Key: $4 \mid 2 = 42$ yrs.

Name _____



End-of-Course Test (continued)

Order the integers from least to greatest.

- 9, -3, 6, -2, -5
- 8, -2, 4, 2, -1

- 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.

- $\frac{5}{8}$
- $\frac{21}{5}$
- $\frac{21}{5}$
- $2\frac{3}{25}$

- 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.
- How many vertices does a rectangular pyramid have?
- 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?
- Write the ratio of baseballs to soccer balls. Explain what the ratio means.

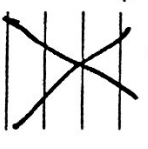


- You run 5 miles in 1 hour. At this rate, how long will it take you to run a marathon (approximately 26 miles)?
- Determine the mean, median, mode(s), IQR, and range for the data.
12, 12, 10, 8, 9, 9, 11, 11, 8
- Katie makes 65% of her shots from the free-throw line. Can you determine how many consecutive free-throws she must make in order to increase her percentage to 88%? Explain.

Answers

- 5, -3, -2, 4, 9
- 8, -2, -1, 2, 4
- 18-pack of juice
- 62.5%
- 420%
- 212%
- They all agree
- $\frac{416.2}{100} = 416.2\%$
- 5 vertices
- \$17.85
- 8:6
- 5 shots 12 min
- mean: 9.9
- median: 9.5
- mode: 9
- IQR: 2
- range: 4

8 baseballs for every 5 soccer



Name _____

Date _____

Test 2 End-of-Course Test (continued)

Plot the ordered pair in the coordinate plane.

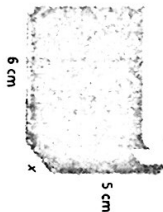
30. $(1, -3)$ 31. $(-2, 4)$
 32. $(0, -2)$ 33. $(-4, -3)$



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.

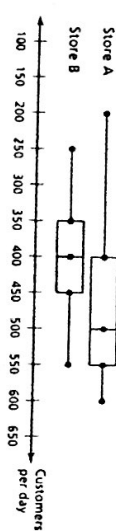
Write the word sentence as an inequality.

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?

Name _____

Date _____

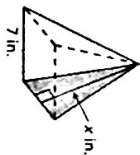
Test 2 End-of-Course Test (continued)

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 ?

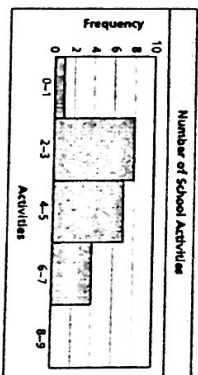


Find the missing values in the ratio table.

Boys	3	9	18
Girls	7	21	42

Feet	72	57	39
Yards	24	19	13

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



50. 3, 7, 5
 $w < 5.5$
 $m \geq 7$
 41. Statistical
more than 1 answer
 42. not statistical
only 1 answer
 43. 25% of the time
Store A: skewed left
Store B: symmetrical
 45. Store A
 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. 10
 47. 21
 48. 30 days
 49. 10
 50. See left.
 51. See left.
 52. 8-9
 53. 20 students
 54. 55%



End-of-Course Test (continued)

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. $-6 + 11$

59. $-2.5(6)$ 60. $45 + (-3)$

61. $-\frac{2}{5} + \frac{7}{10}$ 62. $0.38 - 1.4$

63. $2\frac{1}{8} \cdot \left(-\frac{6}{5}\right)$ 64. $-12.88 + 2.8$

65. 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. $-0.25a + 3.8 = 4.6$

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



End-of-Course Test (continued)

Answers

55. $-5, -4, -1, 0, 1, 2$
 56. $-\frac{6}{5}, 7, -\frac{28}{5}, 8.2, \frac{17}{2}$

57. 7
 58. 5

59. -15
 60. -15

61. $\frac{3}{10}$
 62. -1.02

63. $-2\frac{1}{120}$
 64. -4.6

65. 23.5 points
 66. $x = -17\frac{1}{30}$

67. $a = -3.2$

68. 8 pens
 69. 1456 ft²

70. 0.25 min or 15 sec.



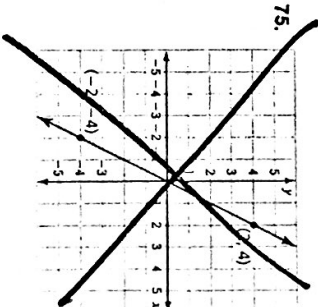
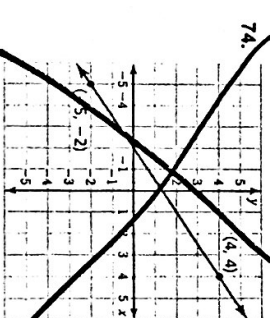
End-of-Course Test (continued)

Tell whether the ratios form a proportion.

71. $\frac{4}{7}, \frac{12}{28}$ 72. $\frac{6}{11}, \frac{30}{55}$

73. Solve the proportion $\frac{3}{8} = \frac{11}{x}$.

Find the slope of the line.



Answers

71. NO

72. yes

73. $x = 29\frac{1}{3}$

74. X

75. X

76. 42

77. Slope 4

78. X

76. If 27% of a number is 11.34, what is the number?

77. A store sign reads, "Take 90% off the original price when you take an additional 15% off the sale price, which is 75% off the original price." Is the store sign accurate? Explain.

78. You put \$1205 in an account that earns 2.5% simple interest. Find the total amount in the account after four years.