

Print Student Name _____

2010–2011



Reading

Mathematics

Writing

Science

GRADE

7

**PRACTICE
TEST BOOKLET
WITH ANSWER
KEY**

DIRECTIONS

Read each question or problem carefully. Then answer the question or work the problem. This session has 5 multiple-choice questions worth 1 point each and 2 short-answer questions worth 2 points each. For each multiple-choice question, decide which is the best answer. Be sure to mark, write, or draw your answers.

- 1 On a day in February, the temperature in Santa Fe at 6:00 A.M. was -12°F . By 3:00 P.M., the temperature was 37°F .

What was the change in temperature, in degrees Fahrenheit, from 6:00 A.M. to 3:00 P.M.?

- A A decrease of 49°F
B A decrease of 25°F
C An increase of 25°F
D An increase of 49°F
- 2 Sally wants to display the percent of sales for each of the 7 types of snack foods sold at her concession stand.

Which type of display would be the most appropriate for showing the percent of sales?

- A Line graph
B Scatter plot
C Circle graph
D Box-and-whisker plot

- 3 The student council collected a total of \$700 from students and parents who attended a school function.

- \$200 was collected from students.
- \$4 was collected from each parent.

The following equation models the amount that was collected.

$$200 + 4x = 700$$

What does x represent in the equation above?

- A The amount each student paid to attend the function
B The amount each parent paid to attend the function
C The number of students who attended the function
D The number of parents who attended the function

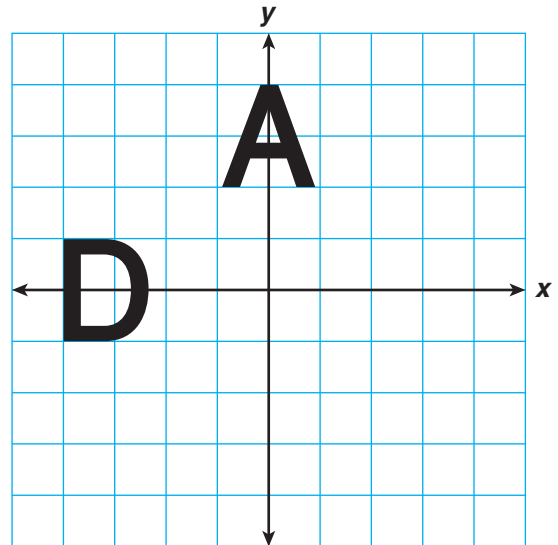
- 4 José designed a fair number cube. He wrote a different number on each face of the cube. The numbers are shown below.

1, 5, 15, 25, 50, 100

If José tosses his number cube 48 times, how many times should he expect to get an odd number?

- A 4
- B 16
- C 24
- D 32

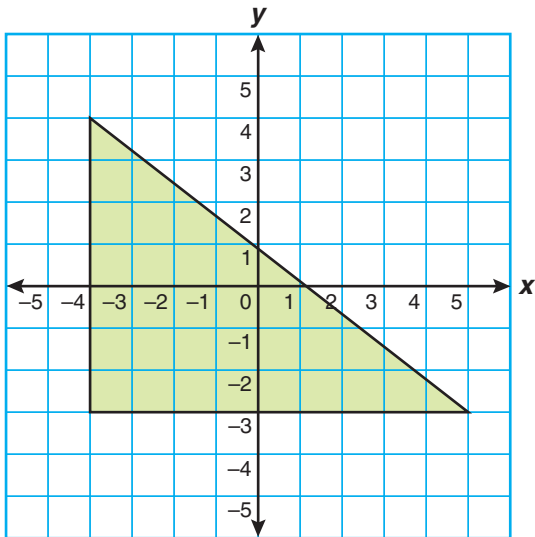
- 5 The coordinate grid below shows the letter A centered on the y -axis and the letter D centered on the x -axis so that a mirror image is formed on both sides of its axis.



Which letter would not form a mirror image if centered on either axis?

- A **W**
- B **T**
- C **X**
- D **S**

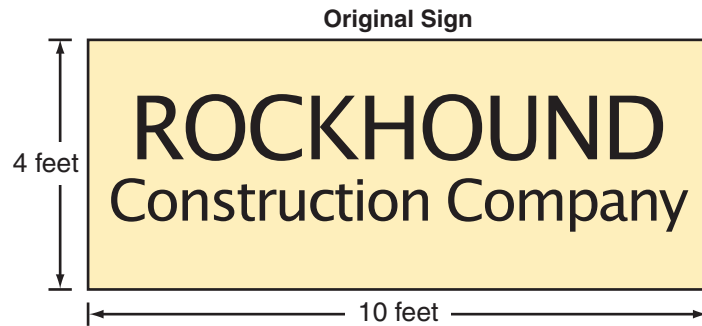
- 6 The right triangle on the coordinate grid below represents property that Olivia has been contracted to sell.



Each unit on the coordinate grid represents 1 mile.

What is the area, in square miles, of the triangular-shaped property? Use words, numbers, or diagrams to justify your answer.

- 7 The manager of a construction company wants a new, larger sign with dimensions that are three times the length and three times the width of the original sign shown below.



- A. How many times greater will the area of the new sign be compared to the area of the original sign? Use words, numbers, or diagrams to justify your answer.
- B. The manager wants to put decorative trim around the new sign. How many times greater will the perimeter of the new sign be compared to the perimeter of the original sign? Use words, numbers, or diagrams to justify your answer.

DIRECTIONS

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8 What is the value of the expression below?

$$50 \div 5^2 \cdot 13$$

- A 26
- B 65
- C 260
- D 1300

9 A stem-and-leaf plot is shown below.

Stem	Leaf
2	4 9
3	1 2 5 5 5 6 8
4	0 7 7 9
5	
6	1 2 2 4

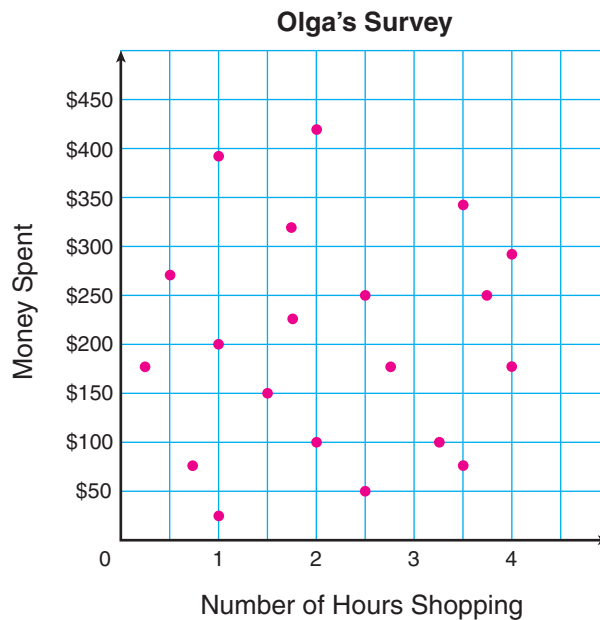
Key

2 | 4 represents 24

Which statement about the data in the plot is false?

- A There are no values present for the interval from 50 to 59.
- B The stem-and-leaf plot represents 22 numbers of data.
- C The number that has the least value in the data is 24.
- D The number that has the greatest value in the data is 64.

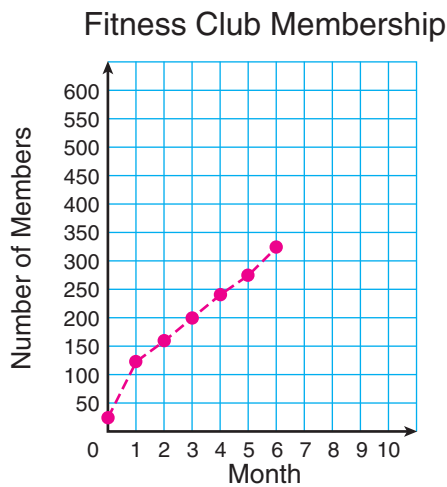
- 10 Olga conducted a survey about consumer spending. The scatter plot shows the number of hours spent shopping versus the money spent by shoppers that Olga surveyed.



Based on the data in the graph, which of the following statements is true?

- A** There appears to be no trend between number of hours spent shopping and money spent.
- B** There appears to be a weak positive trend between number of hours spent shopping and money spent.
- C** There appears to be a negative trend between number of hours spent shopping and money spent.
- D** There appears to be a strong positive trend between number of hours spent shopping and money spent.

- 11 The graph below shows the number of members at a new fitness club.



Based on this rate, which is the best prediction for the number of members the club will have at 9 months?

- A 350
- B 450
- C 550
- D 650

- 12 Rolando is filling his CD case with CDs.

- The weight of the empty CD case is 7 ounces.
- The weight of each CD is about 0.6 ounce.

Which expression can be used to determine the weight of the CD case, in ounces, when filled with n CDs?

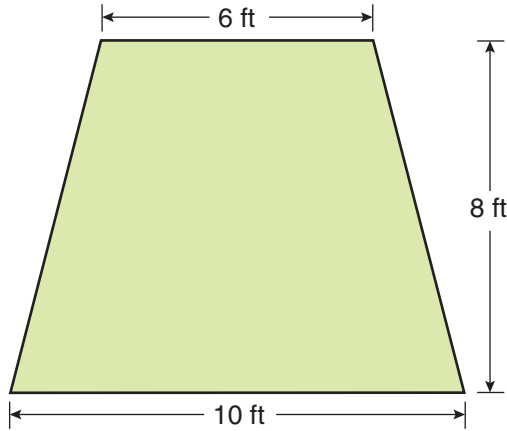
- A $0.6n + 7$
- B $0.6(n + 7)$
- C $7n + 0.6$
- D $7(n + 0.6)$

- 13 Marilyn purchased a book that had a regular price of \$19.

- She used a coupon that reduced the regular price by 15%.
- Sales tax for the purchase was 6.5% of the reduced price.
- Marilyn paid for the purchase with a \$20 bill.

How much change should Marilyn receive for her purchase? Use words, numbers, or diagrams to justify your answer.

- 14 Emma is planting flower seeds in her garden. The garden is in the shape of a trapezoid and has the dimensions shown below.



Each package of seeds covers an area of approximately 6 square feet.

What is the least number of packages of seeds needed to cover Emma's garden? Use words, numbers, or diagrams to justify your answer.

- 15 Use the expression below to answer Parts A and B.

$$40 - 20 \div 4 \cdot 5$$

- A. Which operation should be performed first when simplifying the expression? Use words, numbers, or diagrams to justify your answer.
- B. What is the value of the expression? Use words, numbers, or diagrams to justify your answer.
- C. Create an expression that includes the following:
- Uses all 4 basic operations (+, −, •, ÷) only once and in any order
 - Contains only one exponent
 - Contains only single-digit numbers without having a number repeated

Be sure to give the value of your expression.

GRADE 7 MATHEMATICS PRACTICE TEST ANSWER KEY

Question Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Strand¹	N	D	A	D	G	G	G	N	D	D	D	A	N	M	A
Benchmark	N1	D2	A2	D4	G2	G2	G3	N1	D2	D2	D3	A4	N2	M2	A1
Performance Standard	1	2	2	7	1	1	1			4	2	1	3	2	3
Depth of Knowledge	2	1	2	2	1	2	2	2	2	2	2	2		2	2
Item Type²	MC	MC	MC	MC	MC	SA	SA	MC	MC	MC	MC	MC	SA	SA	OE
Answer Key	D	C	D	D	D			A	B	A	B	A			
Total Possible Points	1	1	1	1	1	2	2	1	1	1	1	1	2	2	4

¹Strand: N = Numbers and Operations, D = Data Analysis and Probability, G = Geometry, M = Measurement, A = Algebra
²Item Type: MC = Multiple Choice, SA = Short Answer, OE = Open Ended