NAME _____ DATE _____ PERIOD _____

Standardized Test Practice

Read each question. Then fill in the correct answer on the answer sheet provided by your teacher or on a sheet of paper.

1. The table below shows the areas of a triangle where the height of the triangle stays the same, but the base changes.

Area of Triangles		
Height (units)	**Base (units)**	**Area (square units)**
4	3	6
4	4	8
4	5	10
4	6	12
4	n	■

Which expression can be used to find the area of a triangle that has a height of 4 units and a base of n units?

A. $\frac{n}{4}$

B. $\frac{4n}{2}$

C. $\frac{4}{2n}$

D. $4n$

2. **GRIDDED RESPONSE** José used a square baking pan to make a cake. The length of each side of the pan was 16 inches. Find the area of the pan in square inches.

3. Janet has a garden in the shape of parallelogram in her front yard. What is the area of the garden if it has a base of 10 feet of a height of 4 feet?

F. 20 ft^2

G. 30 ft^2

H. 40 ft^2

I. 50 ft^2

4. In the spreadsheet below, a formula applied to the values in columns A and B results in the values in column C. What is the formula?

	A	*B*	*C*
1	4	0	4
2	5	1	3
3	6	2	2
4	7	3	1

A. $C = A - B$ **C.** $C = A + B$

B. $C = A - 2B$ **D.** $C = A + 2B$

5. THINK SOLVE EXPLAIN **SHORT RESPONSE** In Mrs. Tucker's classroom library, there are 168 fiction and 224 nonfiction books. What is the ratio of fiction to nonfiction books in simplest form?

6. Which expression gives the area of a triangle with a base of 8 units and height 3 units?

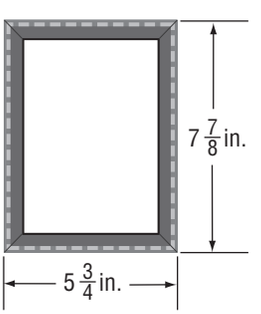
F. 8×3

G. $\frac{1}{2}(8 \times 3)$

H. $\frac{1}{2}(8 + 3)$

I. $(8 + 3) + (8 + 3)$

7. Ted is making three picture frames like the one shown below. What length of wood does Ted need for all three picture frames?



A. $11\frac{1}{2}$ in. **C.** $27\frac{1}{4}$ in.

B. $15\frac{3}{4}$ in. **D.** $81\frac{3}{4}$ in.

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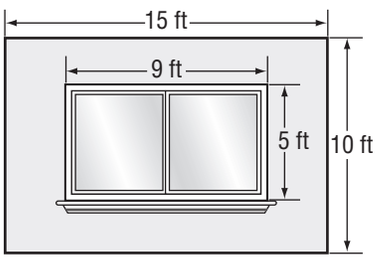
8. THINK SOLVE EXPLAIN **SHORT RESPONSE** Lynette is painting a 15-foot by 10-foot rectangular wall that has a 9-foot by 5-foot rectangular window at its center.



How many square feet of wall will she paint?

9. The cost of renting a car is shown in the advertisement.

Which of the following equations can be used to find t, the cost in dollars of the rental for m miles?

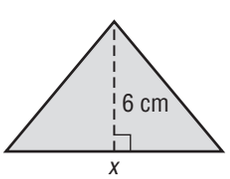
F. $t = 0.10m + 25$

G. $t = 50 + 0.10$

H. $t = 50(m + 0.10)$

I. $t = 50 + 0.10m$

10. The area of a triangle is 30 square inches. What is the length of the base if the height is 6 centimeters?



A. 12 cm

B. 10 cm

C. 5 cm

D. 3 cm

11. **GRIDDED RESPONSE** The road sign shows the distances from the highway exit to certain businesses.

What fraction of a mile is the restaurant from the exit?

12. For every $5 Marta earns mowing lawns, she puts $2 in her savings account. How much money will she have to earn in order to deposit $30 into her savings account?

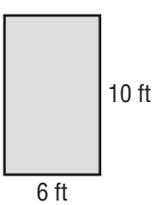
F. $6

G. $12

H. $15

I. $75

13. THINK SOLVE EXPLAIN **EXTENDED RESPONSE** Ryan is painting a mural for his college art final. The mural is shaped like the figure shown below.



Part A Find the perimeter of the figure.

Part B Suppose Ryan doubles the side length of each side, what happens to the perimeter of the figure? Explain your reasoning.