

Enhanced End of Topic Assessment

Name _____ Date _____

Part A: Multiple-Choice Questions

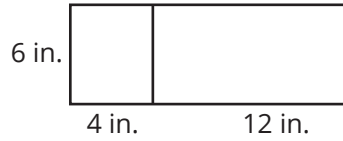
- Which expression is **NOT** equivalent to $48 + 72$?
 - $8(6 + 9)$
 - $12(4 + 8)$
 - $3(16 + 24)$
 - $4(12 + 18)$

- Jennifer is making bouquets of flowers. She has 25 roses, 45 tulips, and 15 snapdragons. Which expression is equivalent to the total number of flowers Jennifer is using to make bouquets?
 - $5(5 + 9) + 3$
 - $5(5 + 9 + 3)$
 - $25 + 3(9 + 5)$
 - $25 + 5(9 + 5)$

- 3.** Rosalie wrote an expression that is equivalent to $(45 + 15) \div 12$. Which expression could be the one that Rosalie wrote?
- a.** $60 \div 3 \cdot 4$
 - b.** $(2 \cdot 2 \cdot 3 \cdot 5) \div 4 \cdot 3$
 - c.** $9 \cdot 5 + 3 \cdot 5 \div 3 \cdot 2 \cdot 2$
 - d.** $(2 \cdot 2 \cdot 3 \cdot 5) \div (2 \cdot 2 \cdot 3)$
- 4.** Mrs. Roman showed students part of the prime factorization of 280. One factor is missing.
- $2^3 \cdot 5 \cdot \underline{\hspace{2cm}}$
- Which number completes this prime factorization?
- a.** 2
 - b.** 3
 - c.** 5
 - d.** 7
- 5.** Which statement shows the correct prime factorization for the number provided?
- a.** $100 = 2 \cdot 5^2$
 - b.** $60 = 3 \cdot 4 \cdot 5$
 - c.** $48 = 2^3 \cdot 3$
 - d.** $36 = 2^2 \cdot 3^2$

Part B: Open-Response Questions

6. Use the diagram to answer the following questions.



7. Rewrite a factor as the sum of two terms in the expression and use the Distributive Property to verify the product.

$$8 \cdot 35 = 280$$

- a. Use the distributive property to write a numeric expression that models the area of the entire rectangle.
- b. Determine the area of the rectangle in square inches.

8. Rewrite the sum in the form $a(b + c)$ such that the integers b and c have no common factor.

$$36 + 72$$

9. Construct a factor tree and write the prime factorization for the given number.

$$112$$

- 10.** Write the prime factorization of the number using powers.

320

- 11.** What is the value of the expression shown? Show your work.

$$5(10 - 4) + 4^2 \cdot 3$$

- 12.** A party planner wrote the expression shown to determine the total cost of an upcoming party.

$$12(10.50 + 3) + 6(5.25 - 2) - 20$$

What is the total cost of that upcoming party? Show your work.

Part C: Griddable Response Questions

Record your answers and fill in the bubbles. Be sure to use the correct place value.

13. Fill in the missing addend in the box that makes the expression equivalent to 150.

$$15(\square + 3)$$

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | . | | |
| + | 0 | 0 | 0 | 0 | | 0 | 0 |
| - | 1 | 1 | 1 | 1 | | 1 | 1 |
| | 2 | 2 | 2 | 2 | | 2 | 2 |
| | 3 | 3 | 3 | 3 | | 3 | 3 |
| | 4 | 4 | 4 | 4 | | 4 | 4 |
| | 5 | 5 | 5 | 5 | | 5 | 5 |
| | 6 | 6 | 6 | 6 | | 6 | 6 |
| | 7 | 7 | 7 | 7 | | 7 | 7 |
| | 8 | 8 | 8 | 8 | | 8 | 8 |
| | 9 | 9 | 9 | 9 | | 9 | 9 |

14. What is the value of this expression?

$$7^2 - 2^3 \cdot 3$$

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | . | | |
| + | 0 | 0 | 0 | 0 | | 0 | 0 |
| - | 1 | 1 | 1 | 1 | | 1 | 1 |
| | 2 | 2 | 2 | 2 | | 2 | 2 |
| | 3 | 3 | 3 | 3 | | 3 | 3 |
| | 4 | 4 | 4 | 4 | | 4 | 4 |
| | 5 | 5 | 5 | 5 | | 5 | 5 |
| | 6 | 6 | 6 | 6 | | 6 | 6 |
| | 7 | 7 | 7 | 7 | | 7 | 7 |
| | 8 | 8 | 8 | 8 | | 8 | 8 |
| | 9 | 9 | 9 | 9 | | 9 | 9 |