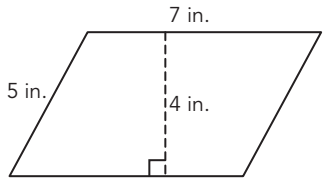
Standardized Test

Name _____ Date _____

1. What is the area of the parallelogram shown?



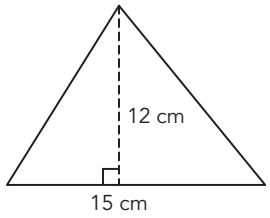
a. 28 square inches

b. 35 square inches

c. 24 square inches

d. 20 square inches

2. What is the area of the triangle shown?



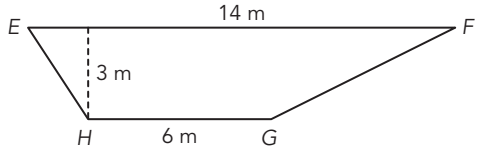
a. 360 square centimeters

b. 180 square centimeters

c. 90 square centimeters

d. 45 square centimeters

3. What is the area of Trapezoid *EFGH*?



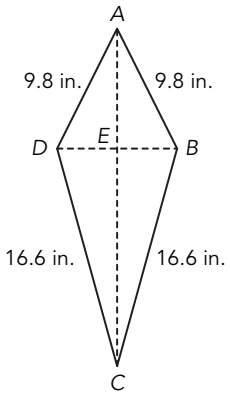
a. 30 square meters

b. 42 square meters

c. 60 square meters

d. 84 square meters

4. Andre is flying a kite. Given $AC = 18$ inches and $BE = 9$ inches, calculate the area of the kite.



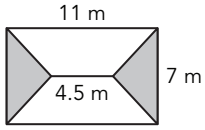
a. 36 square inches

b. 72 square inches

c. 81 square inches

d. 162 square inches

5. What is the area of the shaded region in the figure shown?



a. 77 square meters

b. 22.75 square meters

c. 54.25 square meters

d. 27.125 square meters

6. Which expression is equivalent to the sum 36 + 54?

a. 18(2 + 3)

b. 9(4 + 6)

c. 3(12 + 18)

d. 2(18 + 27)

7. What are the common multiples of 3 and 5 between 1 and 50?

a. 3, 15, 30, and 45

b. 3, 5, 15, and 45

c. 5, 15, and 30

d. 15, 30, and 45

8. Which pair of numbers is relatively prime?

a. 15 and 25

b. 29 and 58

c. 40 and 63

d. 261 and 513

9. What is the prime factorization of 78?

a. 3×26

b. 5×16

c. $2 \times 3 \times 13$

d. $2 \times 2 \times 2 \times 2 \times 5$

10. What is the least common multiple of 8, 12, and 4?

a. 4

b. 16

c. 24

d. 48

11. Lloyd is making goblins and elves on a video game. It takes 6 rounds to make a goblin and 8 rounds to make an elf. If he completes a goblin and an elf at the same time, after how many rounds will he complete another goblin and elf at the same time?

a. 2 rounds

b. 8 rounds

c. 16 rounds

d. 24 rounds

12. An art museum is doing an animation short film exhibition. One screen shows "Ben and Scruffy " with a run time of 4 minutes. Another screen shows "The Cowboy's Can of Beans" with a run time of 6 minutes. If both films start at the same time when the museum opens, how long will it take for the films to start at the same time again?

a. 12 minutes

b. 16 minutes

c. 18 minutes

d. 24 minutes

13. What is the greatest common factor of 44 and 92?

a. 2

b. 4

c. 22

d. 1012

14. Jennifer is making bouquets of flowers. She has 25 roses, 45 tulips, and 15 snapdragons. She divides the flowers equally to make as many bouquets as possible. She uses up all the flowers. What number of snapdragons are in each bouquet?

a. 3

b. 5

c. 9

d. 15

15. Ronald is distributing writing supplies to campers. He must give the same number of supplies to each camper and use all the supplies. He has 14 pencils and 21 note pads. What is the greatest number of campers he can give writing supplies?

a. 2

b. 3

c. 5

d. 7

16. Which properties of arithmetic are used in the following equation? Select all that apply.

$(8 + 2) - (2 \times 3) = 2(4 + 1) - (3 \times 2)$

a. Commutative Property of Multiplication

b. Associative Property of Multiplication

c. Commutative Property of Addition

d. Associative Property of Addition

e. Distributive Property

17. Which statement shows a sum rewritten in the form $a(b + c)$ such that the integers b and c have no common factor? Select all that apply.

a. $25 + 15 = 5(5 + 3)$

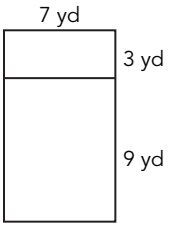
b. $12 + 16 = 9(3 + 7)$

c. $63 + 42 = 7(9 + 6)$

d. $99 + 66 = 33(3 + 2)$

e. $23 + 69 = 23(1 + 3)$

18. Which expression could Fatima use to model and evaluate the area of the large rectangle? Select all that apply.



a. $7(3 + 9)$

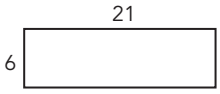
b. $7(3) + 9$

c. $9(3 + 7)$

d. $3(7 \times 9)$

e. $7(3) + 7(9)$

19. Ezekiel decomposed the rectangle shown into three smaller rectangles. Then he demonstrated the Distributive Property by modeling the area of the entire rectangle in terms of the three smaller rectangles. Which equation could Ezekiel have used? Select all that apply.



a. $6(6 + 12 + 3) = 6(6) + 6(12) + 6(3)$

b. $21(3 + 2 + 1) = 21(3) + 21(2) + 21(1)$

c. $21(6 + 6 + 6) = 21(6) + 21(6) + 21(6)$

d. $6(4 + 8 + 9) = 6(4) + 6(8) + 6(9)$

e. $21(3 + 3) = 21(3) + 21(3)$

20. Which properties were used to write the numeric statement? Select all that apply.

$(18 - 5) + (432 \times 15) = (15 \times 432) + (18 - 5)$

a. Associative Property of Addition

b. Commutative Property of Addition

c. Distributive Property

d. Commutative Property of Multiplication

e. Associative Property of Multiplication