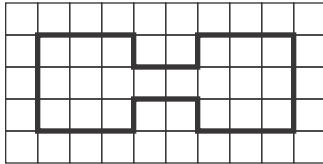


Name \_\_\_\_\_

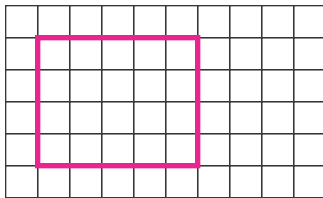
1. Tammy is making a square pattern. Each side is 3 inches. Is the perimeter of the pattern the same as the area of the pattern? Explain. **2 points**

**No; Sample answer: The perimeter is 12 inches. The area is 9 square inches.**

2. Patsy's tile design is shown below.



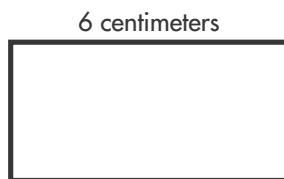
Draw another tile design that has the same area but a different perimeter from Patsy's design. **1 point**



**Sample answer given.**

3. John drew a rectangle with a perimeter of 18 centimeters. He labeled one side 6 centimeters, but he forgot to label the other side. Write the missing side length in the box. **1 point**

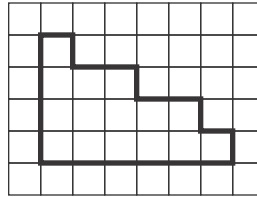
**3 centimeters**



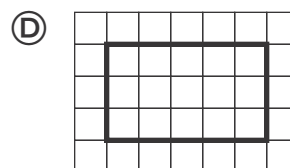
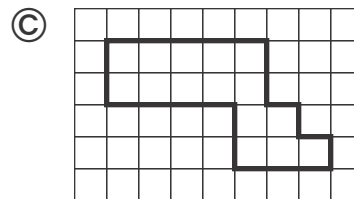
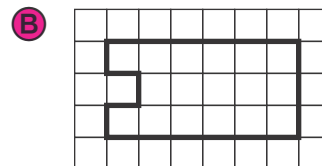
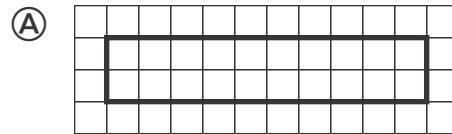
4. Mrs. Nanduri has 42 carpet squares. How should she arrange them so that she has the smallest perimeter? **1 point**

- (A) 21 by 2 rectangle  
(B) 14 by 3 rectangle  
(C) 6 by 7 rectangle  
(D) 42 by 1 rectangle

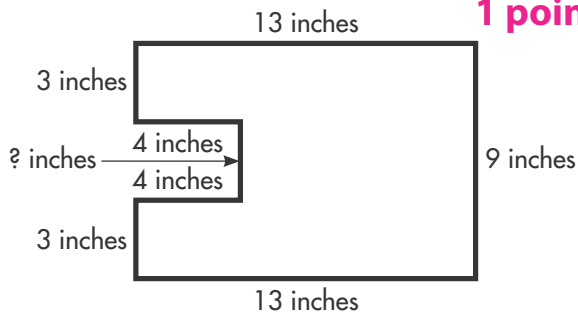
5. Hayley's garden design is below.



Which of the following shapes has a different area but the same perimeter as Hayley's design? **1 point**



6. The perimeter of a game piece is 52 inches. What is the missing side length? **1 point**

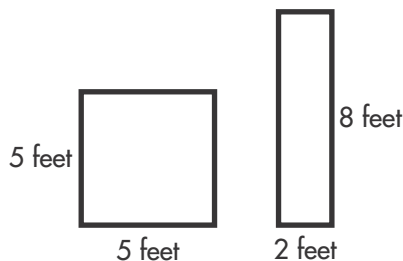


- (A) 2 inches      (C) 4 inches  
 (B) 3 inches      (D) 9 inches

7. Mr. Higgs measures the perimeter of a common shape. One of the sides is 8 centimeters and the perimeter is 24 centimeters. If all of the sides are the same length, what shape does Mr. Higgs measure? Explain. **2 points**

**Triangle; Sample answer: Each side is 8 cm long.  $8 + 8 + 8 = 24$ , there are 3 sides. It must be a triangle.**

8. Tony drew two shapes. Select all of the statements that are true about the shapes. **1 point**



- The shapes have different perimeters.  
 The shapes have different areas.  
 The shapes have the same perimeter.  
 The shapes have the same area.  
 The square has a greater area than the rectangle.

9. Chuck's trapezoid-shaped garden has a perimeter of 22 yards. He knows the length of three sides: 3 yards, 6 yards, and 9 yards. What is the length of the fourth side? **1 point**

**4 yards**

10. Mary's bedroom rug is shown below.



- A. Find the perimeter and area of the rug. **2 points**

**$P = 26$  feet;  
 $A = 36$  square feet**

- B. Could a square with whole-number side lengths have the same perimeter as the rug? The same area? Explain. **2 points**

**Sample answer: A square could not have the same perimeter because no whole number times 4 equals 26; A square could have the same area because  $6 \times 6$  equals 36.**

11. The perimeter of a square garden is 112 feet. What is the side length? Find the dimensions of a rectangle with the same perimeter. **2 points**

**28 feet; Sample answer: 20 feet by 36 feet**