

TEST NAME: Brain Breakfast Area and Perimeter
TEST ID: 2846679
GRADE: 03 - Third Grade
SUBJECT: Mathematics
TEST CATEGORY: My Classroom

Student: _____
Class: _____
Date: _____

1. Which statement is NOT true?

- A. Two unit squares have an area of 2 square units.
- B. A unit square has a side length of 1 square unit.
- C. A unit square has an area of 1 square unit.
- D. Area can be measured using unit squares.

2. The length of one side of each of four figures is shown.

Figure 1

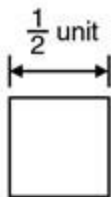


Figure 2

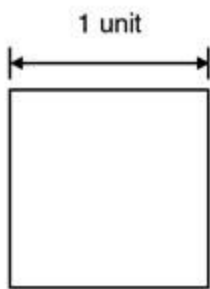


Figure 3

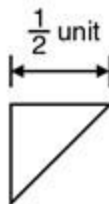
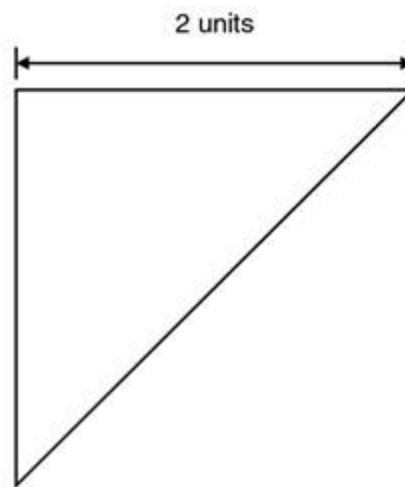


Figure 4



Which figure shows 1 square unit of area?

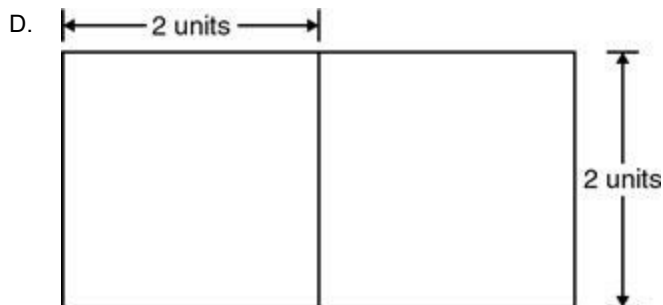
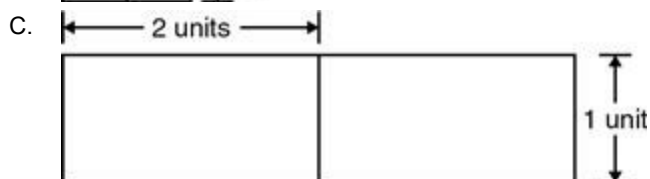
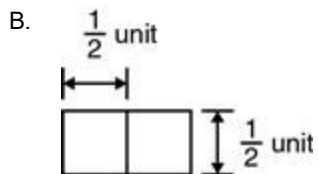
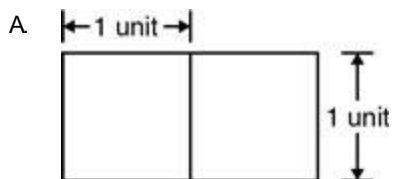
- A. Figure 1
- B. Figure 2
- C. Figure 3
- D. Figure 4

3. Xavier drew the square shown below.

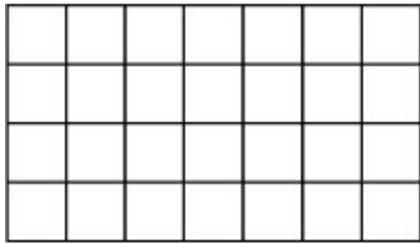


Each side of this square is 1 unit long. What is the area of the square?

- A. 1 unit
B. 4 units
C. 1 square unit
D. 4 square units
4. Which figure shows an area of 2 square units?

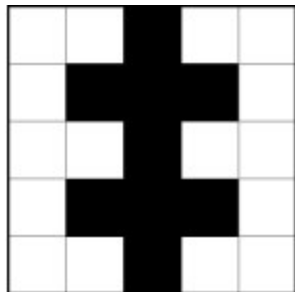



5. What is the area of the rectangle shown below?



 = 1 square centimeter

- A. 11 square centimeters
 - B. 18 square centimeters
 - C. 22 square centimeters
 - D. 28 square centimeters
6. What is the area, in square units, of the figure shaded in black?



 = 1 square unit

- A. 9 square units
- B. 15 square units
- C. 20 square units
- D. 25 square units

7. A plane figure has an area of 6 square units. Which drawing correctly shows shading for how to count the area of a plane figure as 6 square units?

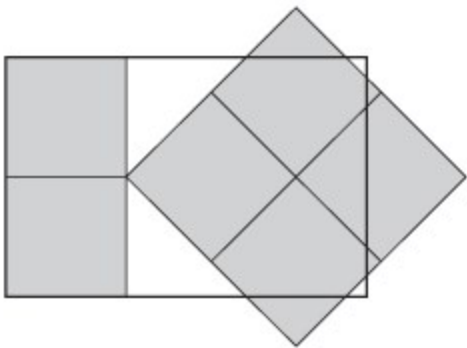
A.



B.



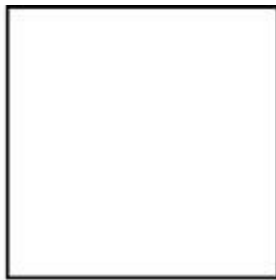
C.



D.



8. Calinda drew this square to show the size of a table top in her classroom.



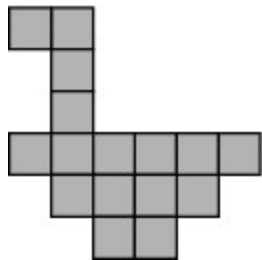
Key: Area = 1 square meter

Which statement must be true about the square Calinda drew?

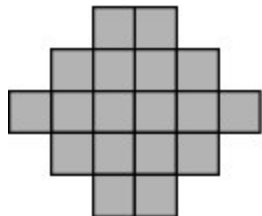
- A. The length must be 4 meters, and the width must be 1 meter.
- B. The length must be 4 meters, and the width must be 4 meters.
- C. The length must be 1 meter, and the width must be 4 meters.
- D. The length must be 1 meter, and the width must be 1 meter.

9. In art class, students used square tiles to make figures. Which figure has the largest area?

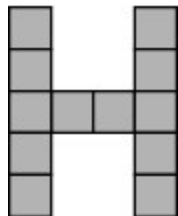
A.



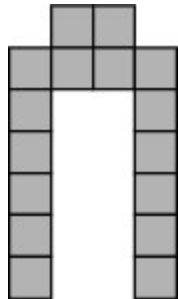
B.



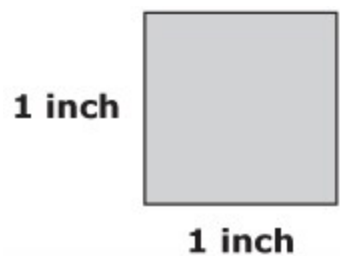
C.



D.

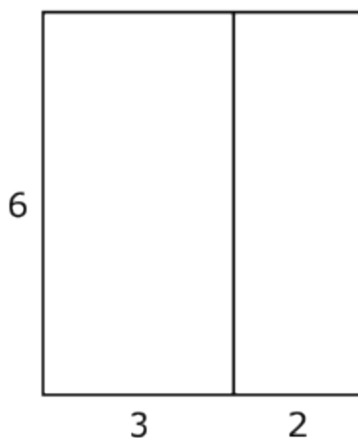


10. Each side of a shape has a length of 1 inch.



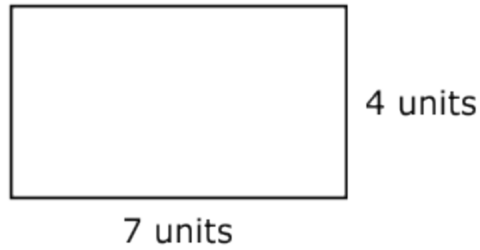
What is the area of the shape?

- A. 2 inches
 - B. 2 square inches
 - C. 1 inch
 - D. 1 square inch
11. Which expression represents the area of the figure below?

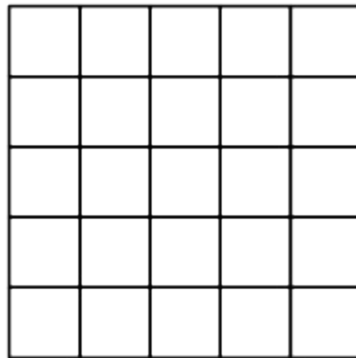


- A. $6 \times 3 \times 2$
- B. $6 \times 3 + 6 \times 2$
- C. $6 + 3 + 6 + 2$
- D. $6 + 3 + 2$

12. What is the area of the rectangle below?

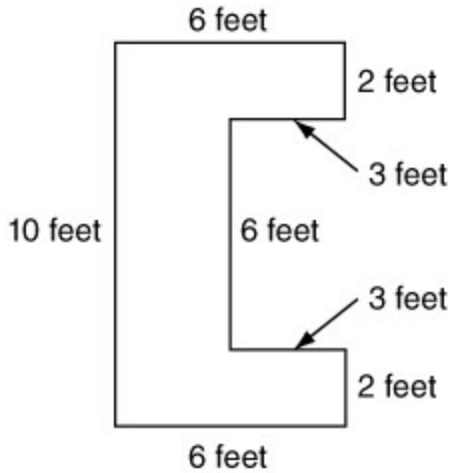


- A. 11 square units
 - B. 18 square units
 - C. 22 square units
 - D. 28 square units
13. Berry used chalk to make a grid on the sidewalk, as shown below.



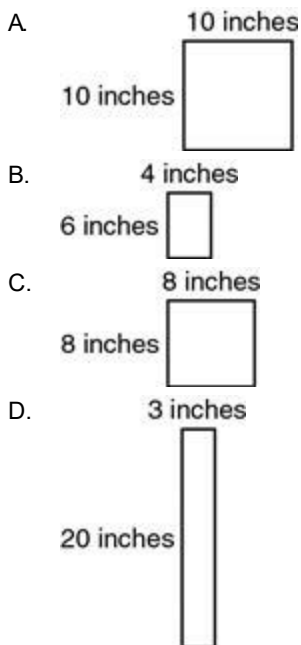
- A. 10 square units
- B. 15 square units
- C. 25 square units
- D. 30 square units

14. Ms. Clark drew this plan for a work space in her kitchen.

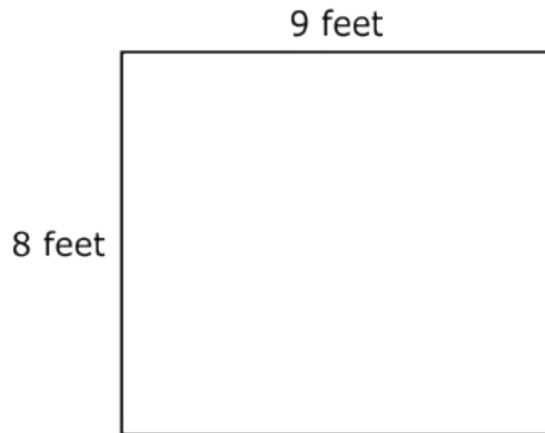


What is the area of the work space Ms. Clark has planned?

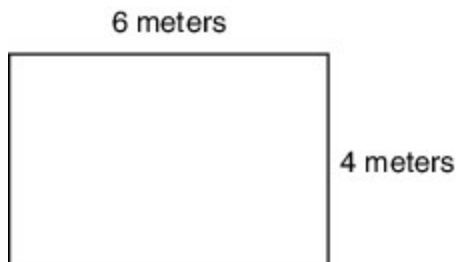
- A. 36 square feet
 - B. 38 square feet
 - C. 42 square feet
 - D. 60 square feet
15. **Gwen completely painted the top surface of a box. She painted an area that was 64 square inches. Which model could be the top view of the box Gwen painted?**



16. What is the area of the figure below?



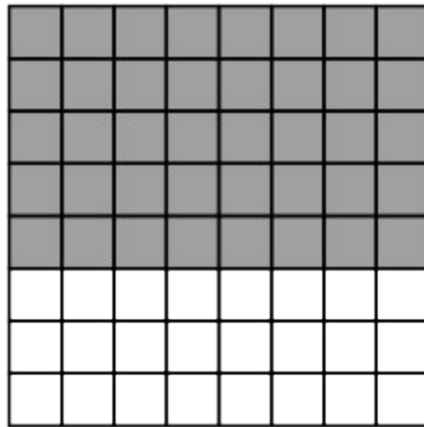
- A. 17 square feet
 - B. 34 square feet
 - C. 72 square feet
 - D. 81 square feet
17. Morgan's bedroom is shaped like a rectangle. It is 4 meters wide and 6 meters long, as shown below.



What is the area of Morgan's bedroom?

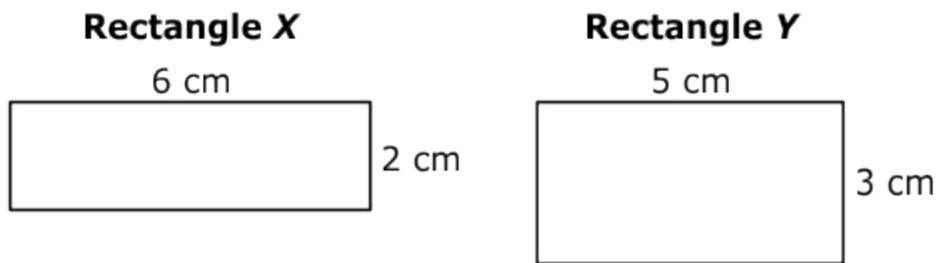
- A. 10 square meters
- B. 20 square meters
- C. 24 square meters
- D. 28 square meters

18. Stephanie is making a patio out of one-foot square bricks. The patio is 8 bricks long and 7 bricks wide. What is the area of Stephanie's patio?
- A. 64 square feet
 - B. 56 square feet
 - C. 30 square feet
 - D. 15 square feet
19. Which expression is used to find the area of the figure below?



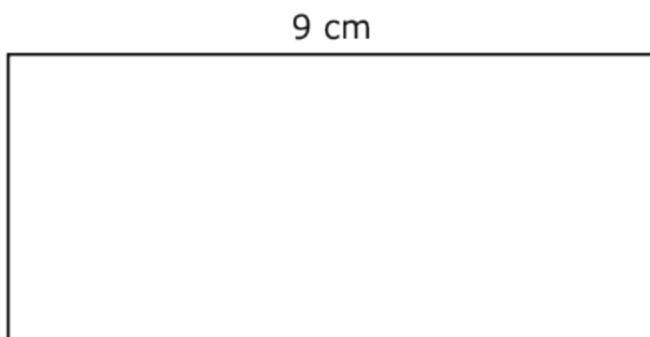
- A. $8 - 5 + 8 - 3$
- B. $8 + 5 + 8 + 3$
- C. $8 \times 5 + 8 + 3$
- D. $8 \times 5 + 8 \times 3$

20. What is the difference in area of the two rectangles below?



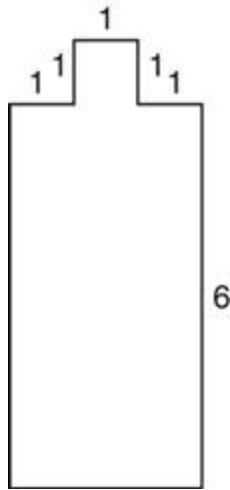
- A. 2 square cm
 - B. 3 square cm
 - C. 12 square cm
 - D. 16 square cm
21. Mr. Jones is building a fence around his garden. His garden is 8 feet long and 6 feet wide. How many feet of fencing will Mr. Jones need?
- A. 64 feet
 - B. 48 feet
 - C. 28 feet
 - D. 14 feet

22. The rectangle below has a perimeter of 26 cm.



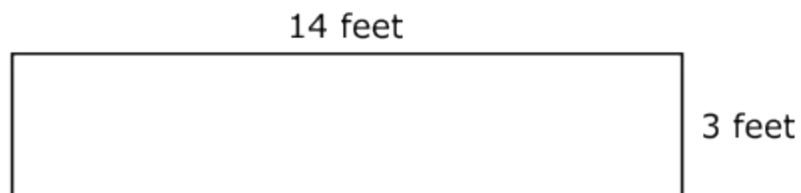
- A. 4 cm
 - B. 8 cm
 - C. 17 cm
 - D. 18 cm
23. How many feet of fencing are needed for a rectangular garden that has a length of 12 feet and a width of 8 feet?
- A. 20 feet
 - B. 32 feet
 - C. 40 feet
 - D. 96 feet

24. Mari made the shape shown below. She combined a square and a rectangle.



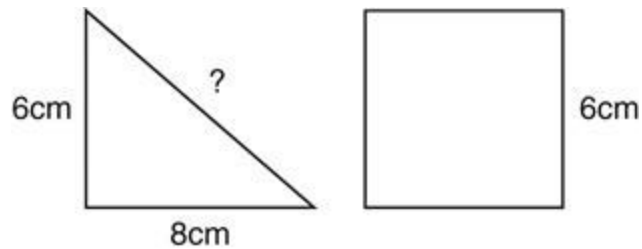
What is the perimeter of the shape?

- A. 6 units
 - B. 11 units
 - C. 20 units
 - D. 22 units
25. Mr. Kim drew a picture of his garden, as shown below, to find how much fencing he needed to buy.



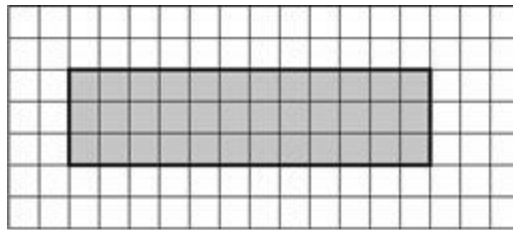
- A. 11 feet
- B. 17 feet
- C. 34 feet
- D. 42 feet

26. The square has the same perimeter as the triangle.



What is the length of the missing side of the triangle?

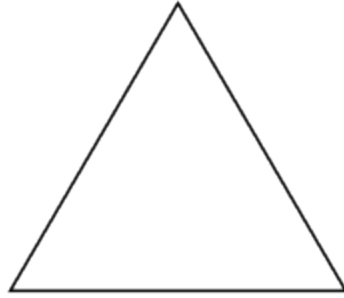
- A. 6 cm
 - B. 8 cm
 - C. 10 cm
 - D. 14 cm
27. Mari's teacher asked her to sketch her bedroom on this grid.



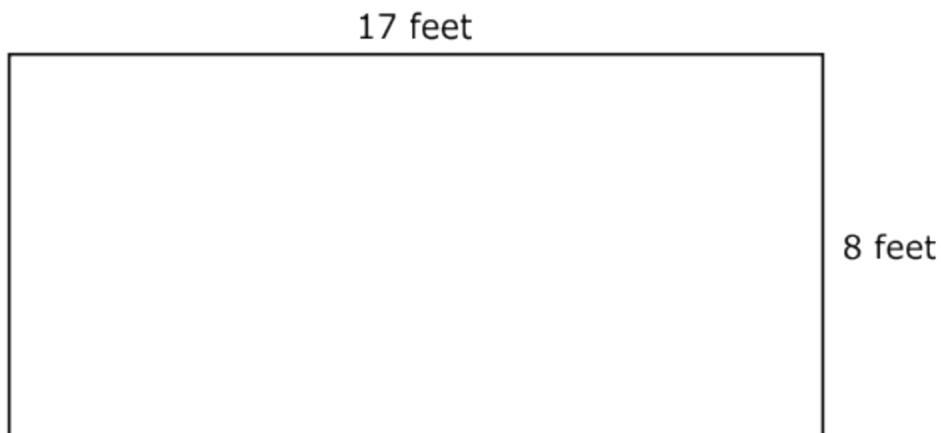
According to Mari's sketch, what is the perimeter of her bedroom?

- A. 15 units
 - B. 26 units
 - C. 30 units
 - D. 36 units
28. What is the perimeter of a rectangle that is 7 in. long and 8 in. wide?
- A. 15 in.
 - B. 30 in.
 - C. 56 in.
 - D. 72 in.

29. The sides of the triangle below have the same length. The perimeter is 18 inches.



- A. 3 inches
 - B. 6 inches
 - C. 7 inches
 - D. 12 inches
30. Josh's dad asked him to find the perimeter of the basketball court below.



- A. 25 feet
- B. 33 feet
- C. 42 feet
- D. 50 feet

31. Mark made a rectangular name tag. Each letter on the tag is 2 inches tall and 1 inch wide.



What is the perimeter of Mark's name tag?

- A. 6 inches
- B. 10 inches
- C. 12 inches
- D. 18 inches

32. Michele is looking for a rug with a perimeter of 24 feet.

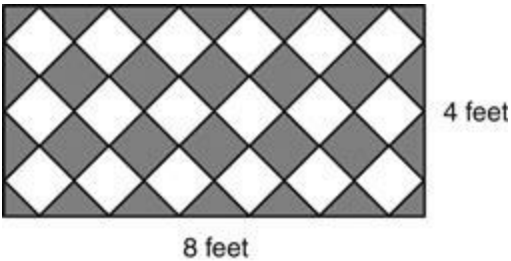
Perimeter = distance around a figure

Which rug has a perimeter of 24 feet?

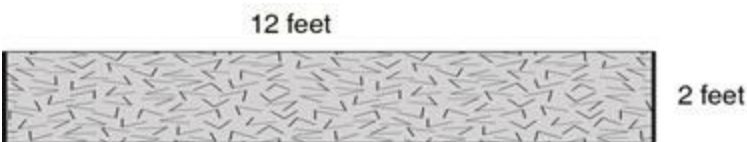
A.



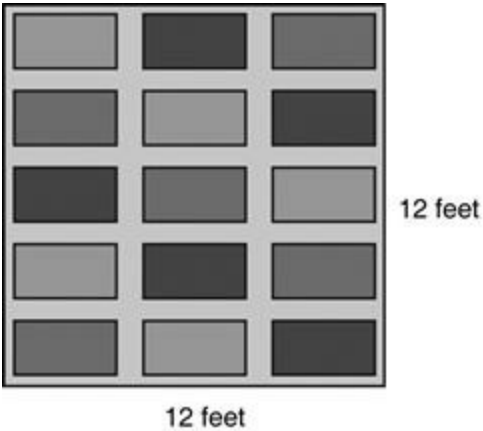
B.



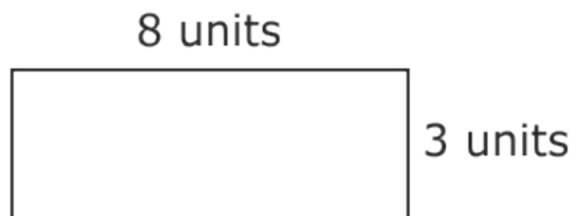
C.



D.

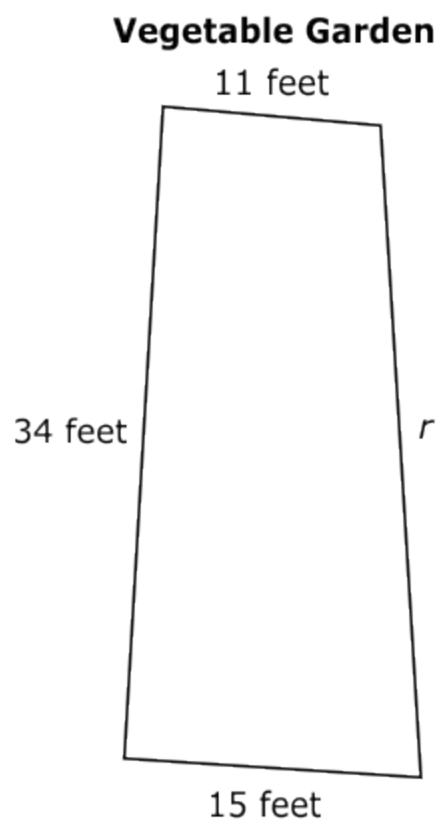


33. What is the perimeter of the rectangle below?



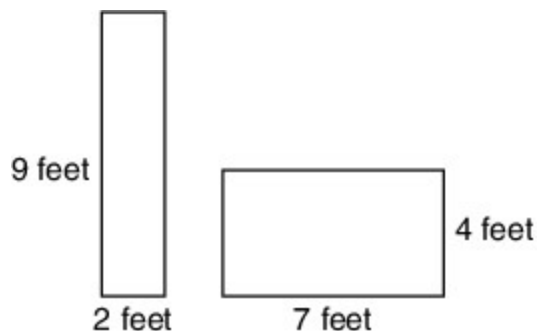
- A. 24 units
- B. 22 units
- C. 11 units
- D. 5 units

34. The vegetable garden below has a perimeter of 98 feet.



- A. 26 feet
- B. 34 feet
- C. 38 feet
- D. 48 feet

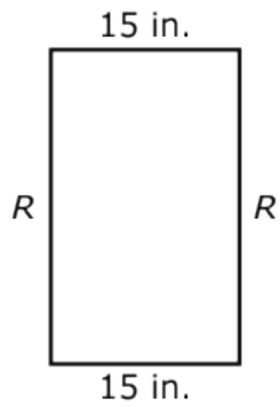
35. Look at the rectangles below.



Which statement about the rectangles is true?

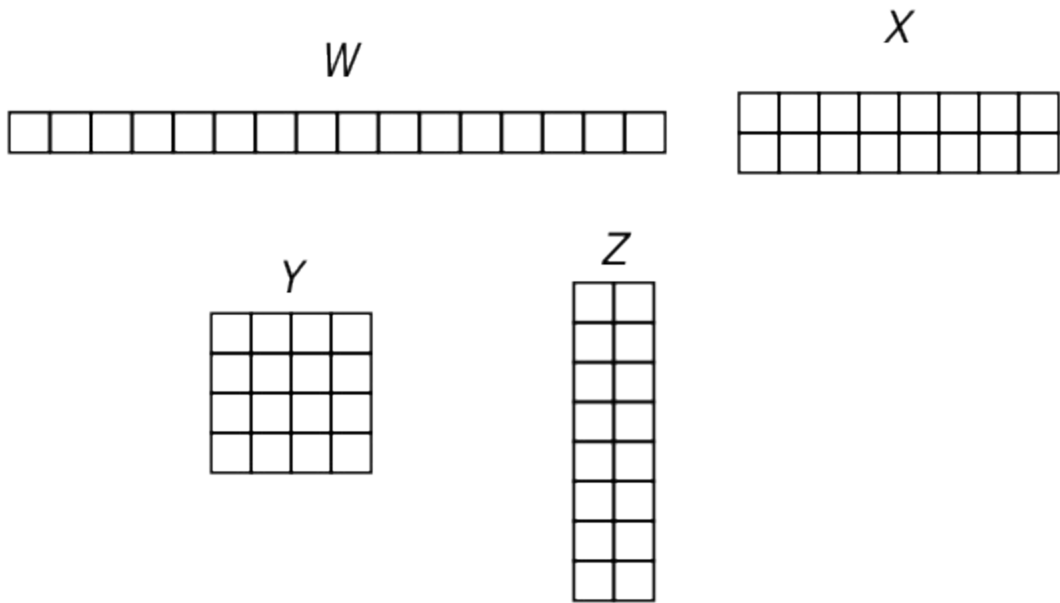
- A. The rectangles have the same perimeter and the same area.
 - B. The rectangles have the same perimeter but different areas.
 - C. The rectangles have different perimeters but the same area.
 - D. The rectangles have different perimeters and different areas.
36. What is the perimeter of a rectangle that measures 3 ft long and 5 ft wide?
- A. 8 ft
 - B. 13 ft
 - C. 15 ft
 - D. 16 ft

37. The perimeter of the rectangle below is 90 in.

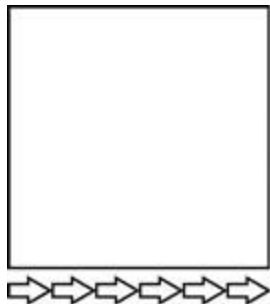


- A. 15 in.
- B. 30 in.
- C. 45 in.
- D. 60 in.

38. Hannah drew the four rectangles below with the same area.



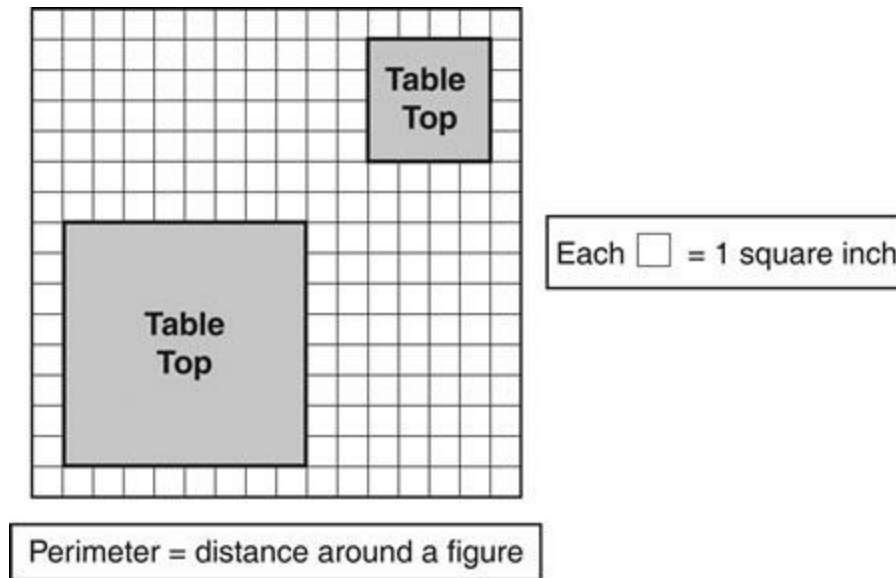
- A. *W*
 - B. *X*
 - C. *Y*
 - D. *Z*
39. The length of one side of the square is equal to the length of 6 arrows.



If each arrow is equal to 1 unit, what is the perimeter of the square?

- A. 6 units
- B. 18 units
- C. 24 units
- D. 36 units

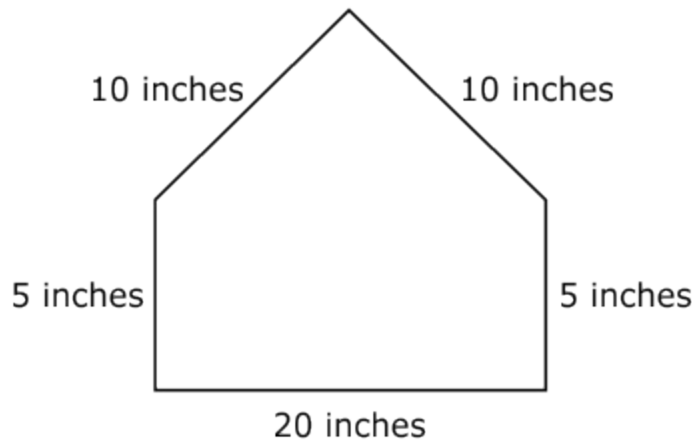
40. Mr. Henderson attached ribbon along the perimeter of each of the table tops shown below.



What is the total length of the perimeters of the table tops?

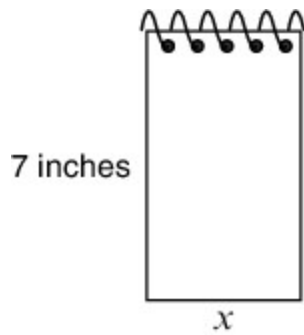
- A. 32 inches
 - B. 48 inches
 - C. 70 inches
 - D. 80 inches
41. Karen is making a blanket for her mother that measures 54 inches by 68 inches. What is the perimeter of the blanket?
- A. 68 inches
 - B. 122 inches
 - C. 244 inches
 - D. 3672 inches

42. The side lengths of a school crossing sign are shown below.



- A. 30 inches
B. 40 inches
C. 50 inches
D. 100 inches
43. Jahiem measured the perimeter of the reading table in his classroom. The table has 4 sides, but is not rectangular.
- The longest side measured 48 inches.
 - Two sides measured 27 inches.
 - The total perimeter of the table was 126 inches.
- What is the length of the side that Jahiem did not measure?
- A. 24 inches
B. 28 inches
C. 48 inches
D. 51 inches
44. **Mr. Ming plans to put a fence around his rectangular garden. The garden measures 12 feet by 10 feet. What is the minimum number of feet of fencing that Mr. Ming will need?**
- A. 22
B. 44
C. 60
D. 120

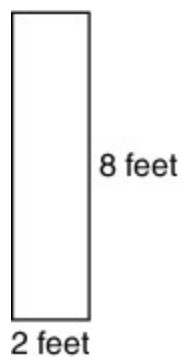
45. The cover of a notepad is shown below. The cover is a rectangle with a perimeter of 22 inches.



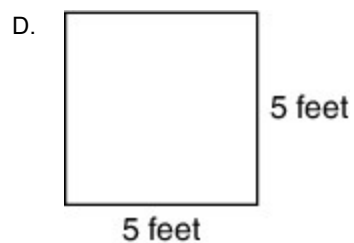
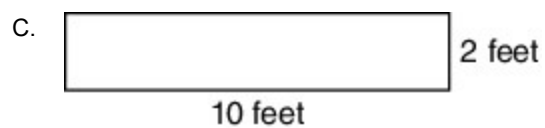
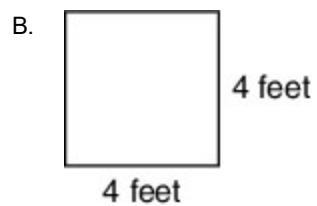
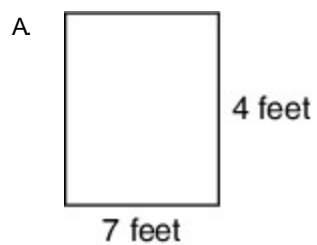
What is the length of the side marked x ?

- A. 3 inches
 - B. 4 inches
 - C. 8 inches
 - D. 15 inches
46. **Iris painted 8 hexagon-shaped paving stones that she will place on the ground as a pathway from her back porch to her swimming pool. The paving stones are 9 inches on each side. What is the perimeter of each stone?**
- A. 45 inches
 - B. 54 inches
 - C. 63 inches
 - D. 72 inches

47. Look at the rectangle below.

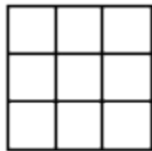


Which rectangle has the same perimeter?

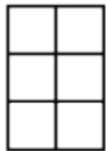


48. Which pair of rectangles has the same perimeter, but different areas?

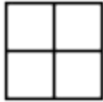
A.



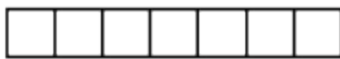
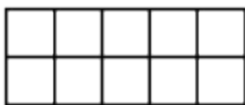
B.



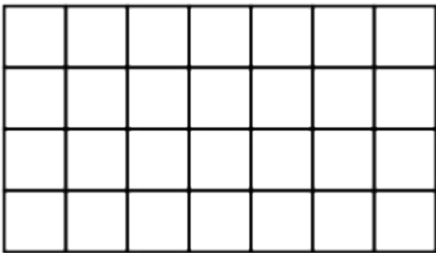
C.



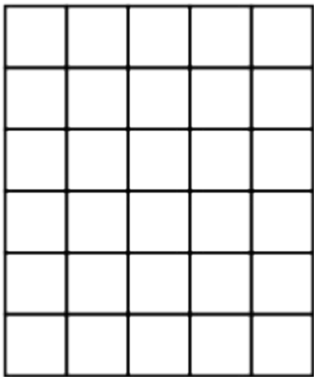
D.



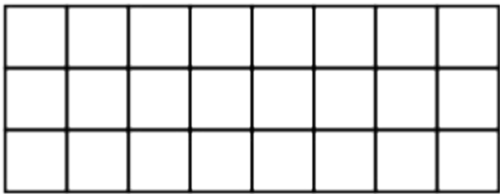
49. David drew the diagram below.



A.



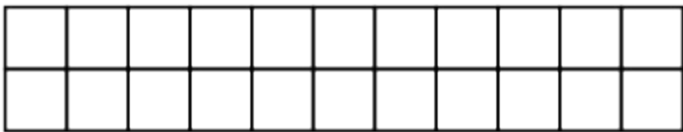
B.



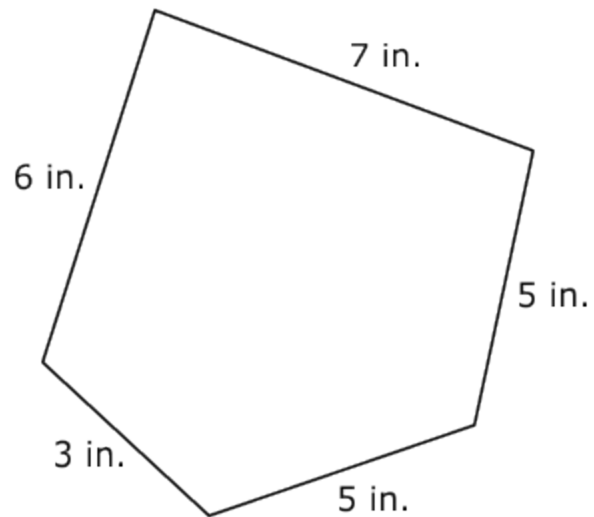
C.



D.



50. Kenny saw the figure below on his math worksheet.



- A. 18 in.
- B. 26 in.
- C. 36 in.
- D. 65 in.