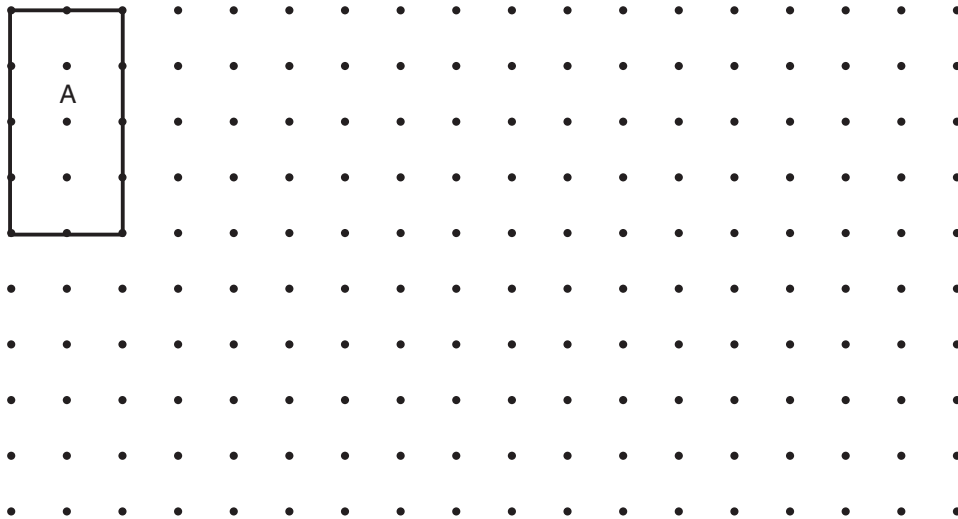


# Challenge

## Predict Area and Perimeter

Rectangle A is 4 units long and 2 units wide. Draw another rectangle by increasing rectangle A's length and width by 1 unit. Label this new rectangle B. Draw another rectangle, labeled C, by increasing rectangle B's length and width by 1 unit. Then draw rectangle D by increasing rectangle C's length and width by 1 unit.



1. Find the perimeter and area of each rectangle.

a. Rectangle A: Perimeter \_\_\_\_\_ Area \_\_\_\_\_

b. Rectangle B: Perimeter \_\_\_\_\_ Area \_\_\_\_\_

c. Rectangle C: Perimeter \_\_\_\_\_ Area \_\_\_\_\_

d. Rectangle D: Perimeter \_\_\_\_\_ Area \_\_\_\_\_

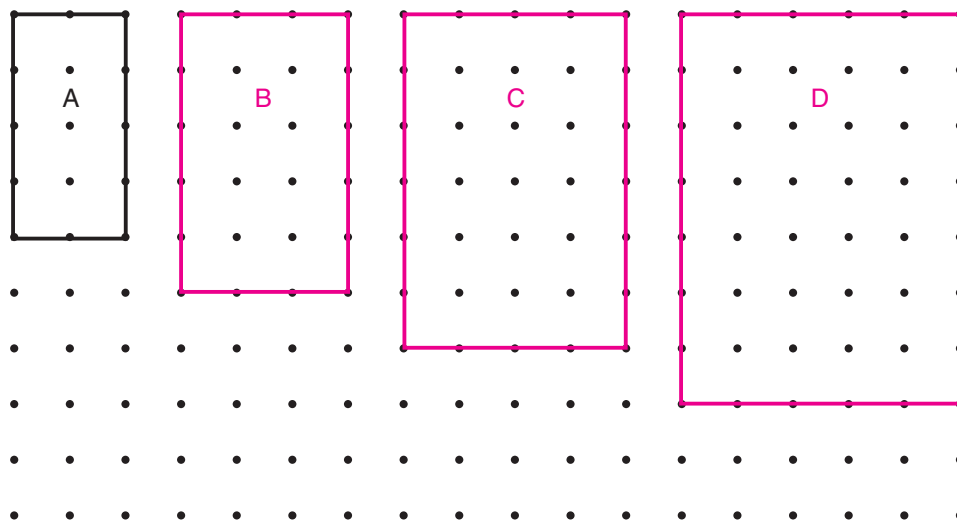
2. Describe the patterns in the perimeter and area as each side of the rectangles increases by 1 unit. \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

3. Suppose you drew a rectangle by increasing the width and length of rectangle D by 1 unit. What would the perimeter and area of this new rectangle be?  
 \_\_\_\_\_

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1. Find the perimeter and area of each rectangle.

a. Rectangle A: Perimeter 12 units Area 8 square units

b. Rectangle B: Perimeter 16 units Area 15 square units

c. Rectangle C: Perimeter 20 units Area 24 square units

d. Rectangle D: Perimeter 24 units Area 35 square units

2. Describe the patterns in the perimeter and area as each side of the rectangles

increases by 1 unit. Sample response: The perimeters increase

by 4 units; the areas increase by consecutive odd

numbers of square units, + 7, + 9, + 11.

3. Suppose you drew a rectangle by increasing the width and length of rectangle D by 1 unit. What would the perimeter and area of this new rectangle be?

Perimeter: 28 units; Area: 48 square units