

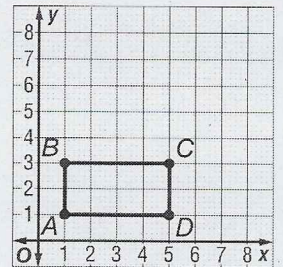
Lesson 5 Reteach

Polygons on the Coordinate Plane

You can use coordinates of a figure to find its dimensions by finding the distance between two points.
 To find the distance between two points with the same x -coordinates, subtract their y -coordinates.
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Example

A rectangle has vertices $A(1,1)$, $B(1,3)$, $C(5,3)$, and $D(5,1)$. Use the coordinates to find the length of each side. Then find the perimeter of the rectangle.



Width: Find the length of the horizontal lines.

\overline{AD} is 4 units long.

\overline{BC} is 4 units long.

Length: Find the length of the vertical lines.

\overline{AB} is 2 units long.

\overline{DC} is 2 units long.

Add the lengths of each side to find the perimeter.

$$4 + 4 + 2 + 2 = 12 \text{ units}$$

So, rectangle $ABCD$ has a perimeter of 12 units.

Exercises

Use the coordinates to find the length of each side of the rectangle. Then find the perimeter.

1. $R(1,1)$, $S(1,7)$, $T(5,7)$, $U(5,1)$

2. $E(3,6)$, $F(7,6)$, $G(7,2)$, $H(3,2)$

