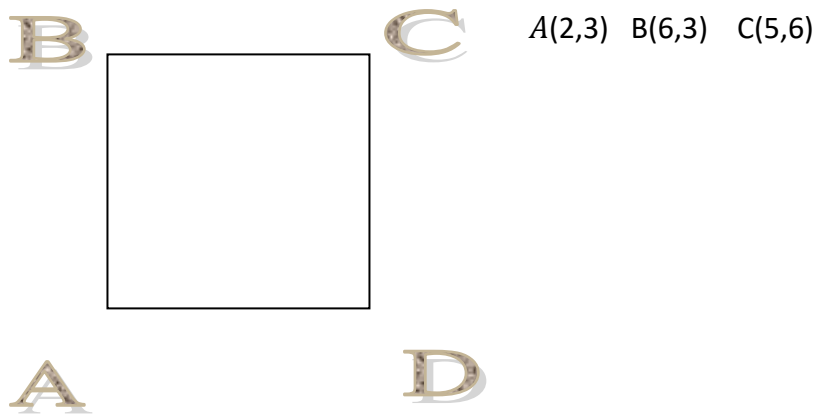


Question #72553, Math / Algebra | Completed

- 1)The points A, B and x have coordinates (2,3) (6,3) and (5,6) respectively
A)The figure ABCD is a square find coordinates of the point D

Solution



If ABCD is a square, then it is a parallelogram. Consequently, the diagonals of the parallelogram intersect and at the intersection are divided into halves.

We will calculate the point O - the intersection of the diagonals. It is the middle of the section AC.

$$x = \frac{x_1 + x_2}{2}$$
$$y = \frac{y_1 + y_2}{2}$$

O(x,y)

$$x = \frac{5 + 2}{2}$$

$$y = \frac{6 + 3}{2}$$

$$x = 3,5 \quad y = 4,5$$

O(3,5 ; 4,5)

We will calculate the point D

O is the midpoint of the BD

D(a,b)

$$3,5 = \frac{6 + a}{2}$$

$$4,5 = \frac{3 + b}{2}$$

a=1 b=6

Answer D(1,6)

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