

## Section 2.1: Rectangular Coordinates and Graphs

### Video 1

1) Plot these points on the same x-y plane.

A)  $(3, 2)$

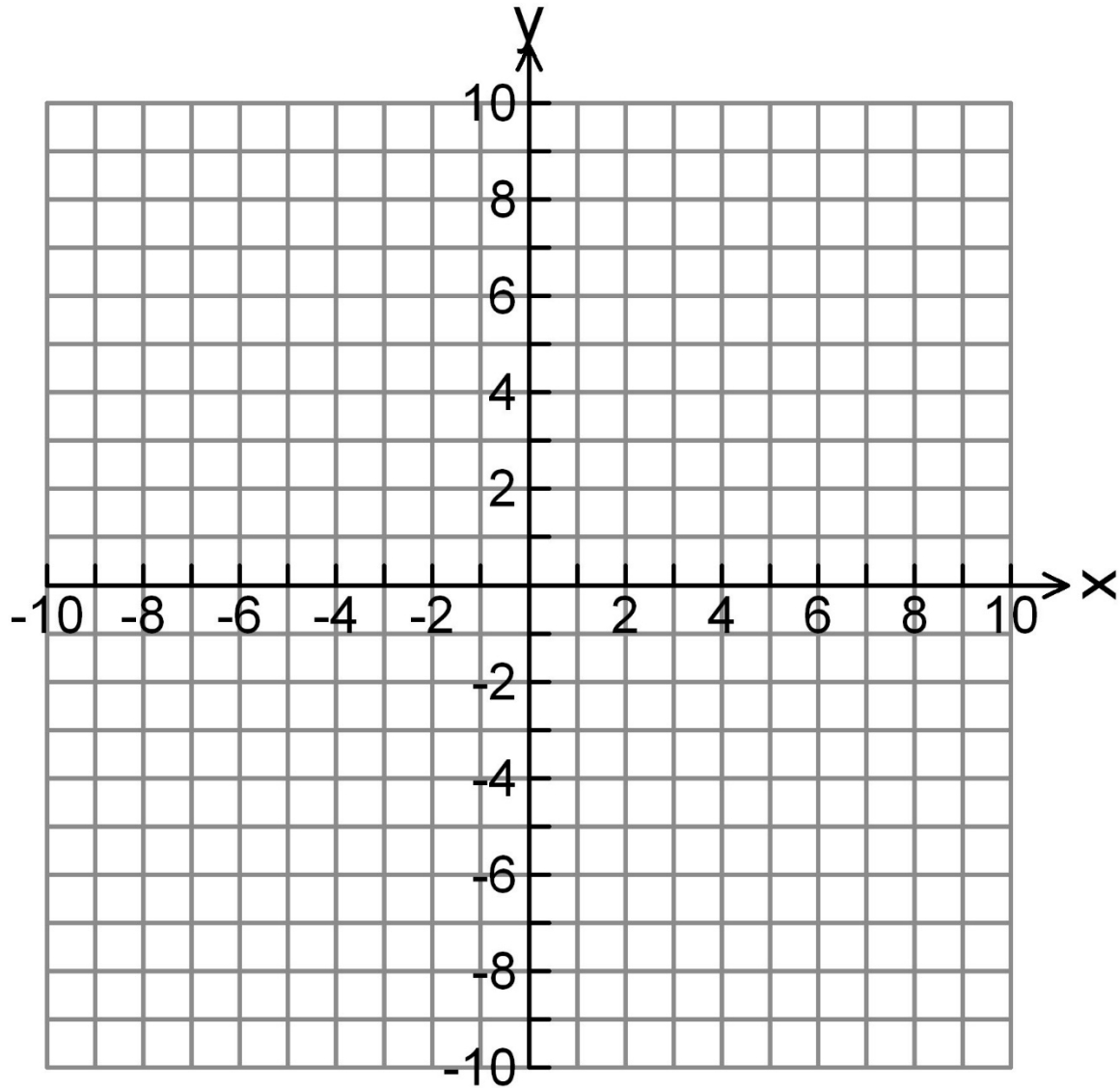
B)  $(5, -4)$

C)  $(-2, 6)$

D)  $(-4, -5)$

E)  $(5, 0)$

F)  $(0, -3)$



**Video 2**

2) Find the distance between the two points. Find the exact answer, and approximate to the nearest tenth if necessary.

a)  $(3,6)$  and  $(8,18)$

b)  $(-5,2)$  and  $(-3,-10)$

3) Do these three points form a right triangle?

A)  $(-3, -5)$

B)  $(2, -2)$

C)  $(-7, 0)$

4) Are these three points collinear?

A)  $(-1, 6)$

B)  $(1, 4)$

C)  $(9, -4)$

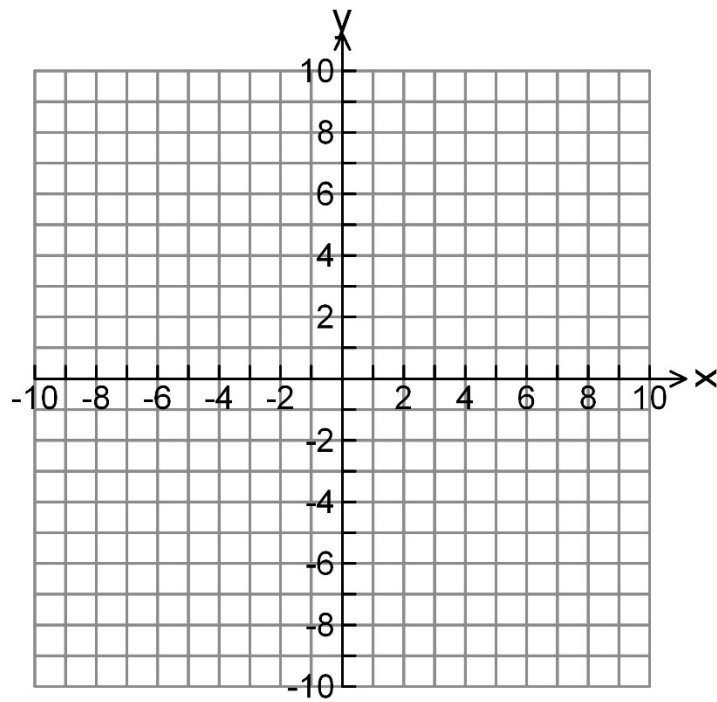
**Video 3**

5) Find the midpoint of the line segment whose endpoints are  $(2, -7)$  and  $(-5, -13)$ .

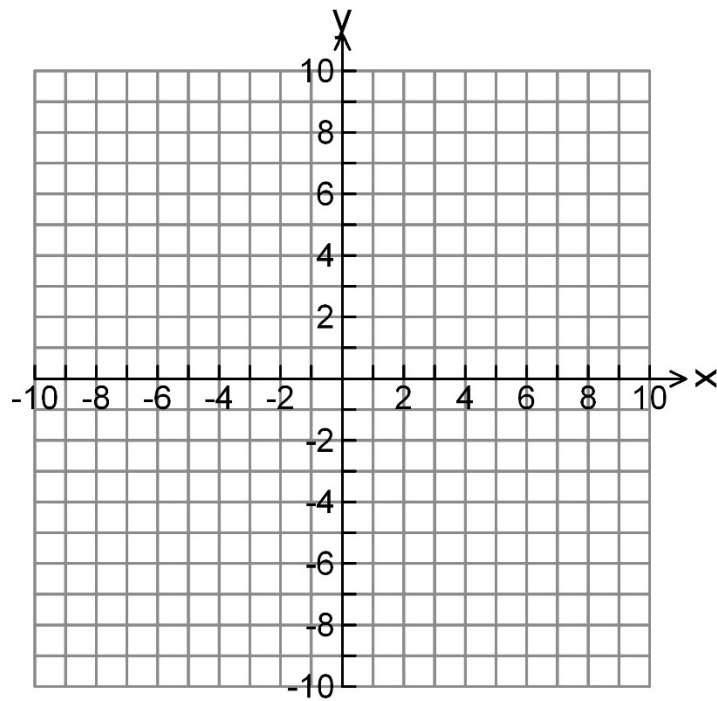
6) The line segment from  $A$  to  $B$  has a midpoint of  $(2, -9)$ . If the coordinates of  $A$  are  $(7, -6)$ , find the coordinates of  $B$ .

**Video 4**

7) For the equation  $y = 2x - 6$ , find the intercepts, three other ordered pair solutions, and graph each equation.



8) For the equation  $x = \sqrt{y+2}$ , find the intercepts, three other ordered pair solutions, and graph each equation.



9) For the equation  $y = x^2 - 9$ , find the intercepts, three other ordered pair solutions, and graph each equation.

