

System of Equations (Graphical Method)

a) Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} y = 2 \\ x + 2y = 10 \end{cases}$.

b) Name the ordered pair where the graphs of the two linear equations intersect.

c) Verify that the ordered pair named in part (a) is a solution to $y = 2$.

d) Verify that the ordered pair named in part (a) is a solution to $x + 2y = 10$.

System of Equations (Graphical Method)

a) Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} y = 2 \\ x + 2y = 10 \end{cases}$.

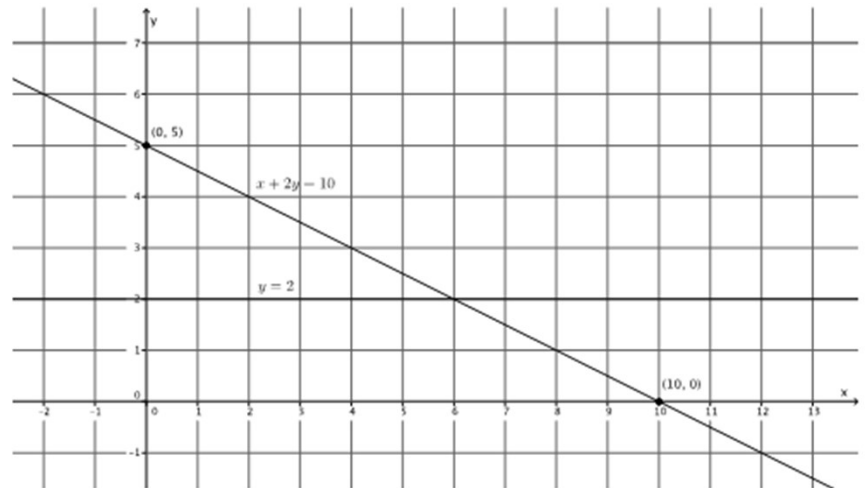
For the equation $x + 2y = 10$:

$$\begin{aligned} 0 + 2y &= 10 \\ 2y &= 10 \\ y &= 5 \end{aligned}$$

The y-intercept point is (0, 5).

$$\begin{aligned} x + 2(0) &= 10 \\ x &= 10 \end{aligned}$$

The x-intercept point is (10, 0).



b) Name the ordered pair where the graphs of the two linear equations intersect.

(6, 2)

c) Verify that the ordered pair named in part (a) is a solution to $y = 2$.

$$2 = 2$$

The left and right sides of the equation are equal.

d) Verify that the ordered pair named in part (a) is a solution to $x + 2y = 10$.

$$\begin{aligned} 6 + 2(2) &= 10 \\ 6 + 4 &= 10 \\ 10 &= 10 \end{aligned}$$

The left and right sides of the equation are equal.

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