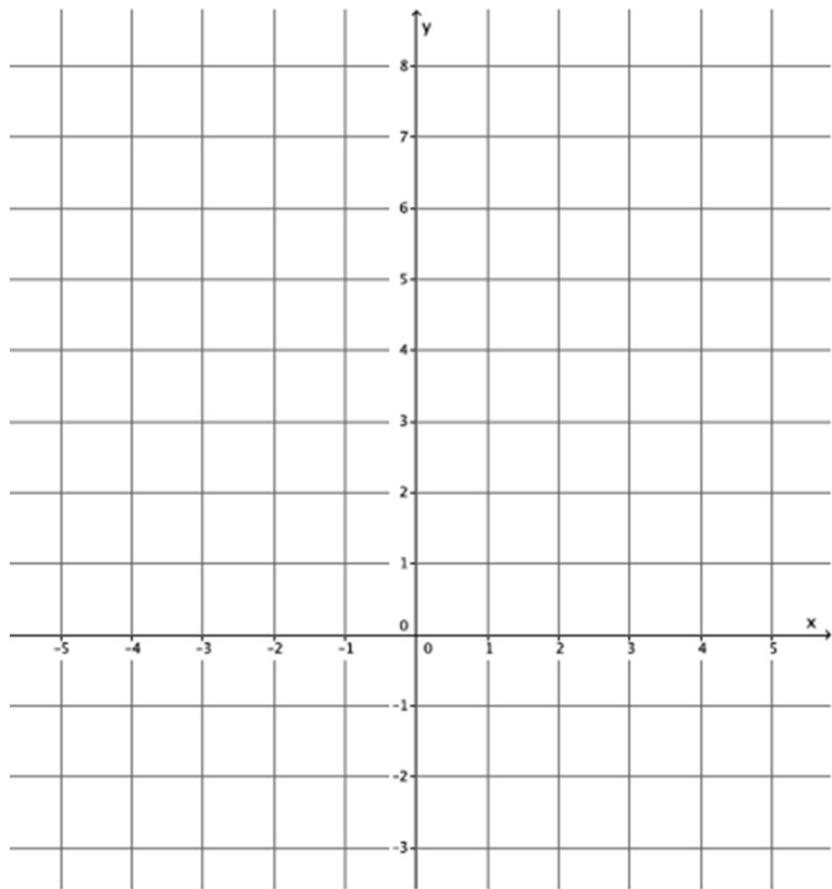


System of Equations (Graphical Method)

- a) Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} x + y = -2 \\ y = 4x + 3 \end{cases}$



- 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 $x + y = -2$.
- d) Verify that the ordered pair named in part (a) is a solution to $y = 4x + 3$.

System of Equations (Graphical Method)

- a) Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} x + y = -2 \\ y = 4x + 3 \end{cases}$

For the equation $x + y = -2$

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

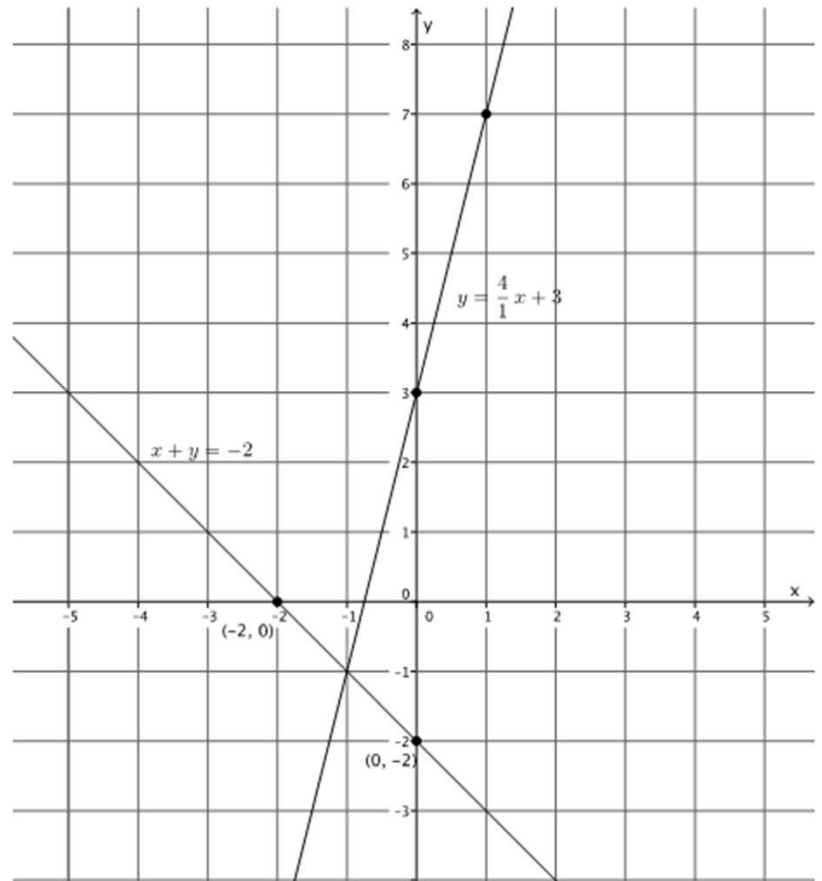
The y -intercept point is $(0, -2)$.

$$\begin{aligned} x + 0 &= -2 \\ x &= -2 \end{aligned}$$

The x -intercept point is $(-2, 0)$.

For the equation $y = 4x + 3$:

The slope is $\frac{4}{1}$, and the y -intercept point is $(0, 3)$.



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

$$(-1, -1)$$

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

$$\begin{aligned} -1 + (-1) &= -2 \\ -2 &= -2 \end{aligned}$$

The left and right sides of the equation are equal.

- d) Verify that the ordered pair named in part (a) is a solution to $y = 4x + 3$.

$$\begin{aligned} -1 &= 4(-1) + 3 \\ -1 &= -4 + 3 \\ -1 &= -1 \end{aligned}$$

The left and right sides of the equation are equal.

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