System of Equations (Graphical Method)

a) Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} \boldsymbol{y = \frac{1}{3}x + 1} \\ \boldsymbol{y = -3x + 11} \end{cases}$

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 $y = \frac{1}{3}x + 1$.

d) Verify that the ordered pair named in part (a) is a solution to $y = -3x + 11$.

System of Equations (Graphical Method)

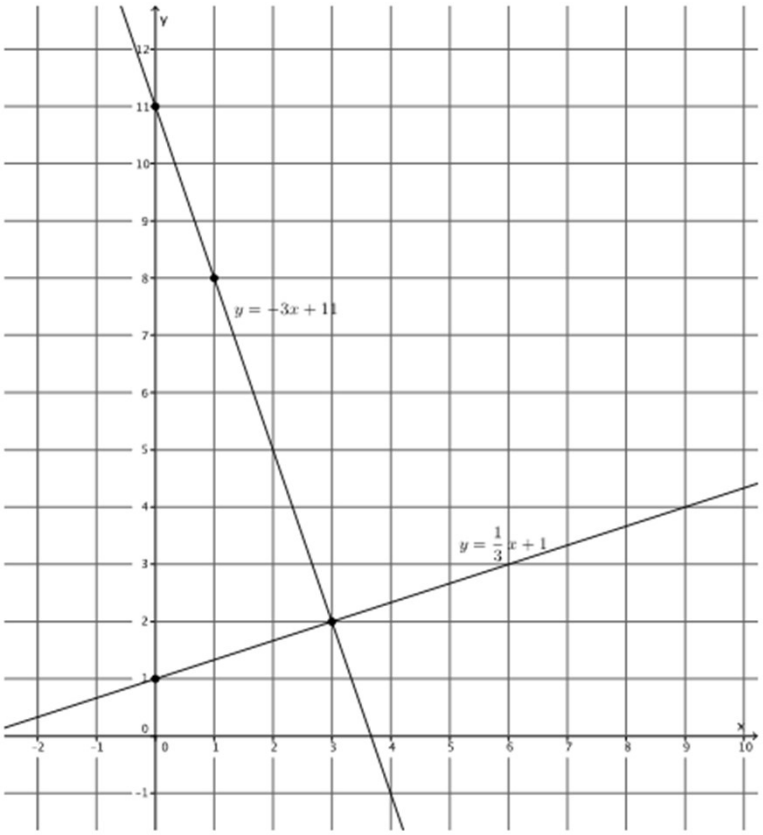
a) Sketch the graphs of the linear system on a coordinate plane: $\begin{cases} y = \frac{1}{3}x + 1 \\ y = -3x + 11 \end{cases}$

For the equation $y = \frac{1}{3}x + 1$

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

For the equation $y = -3x + 11$:

The slope is $-\frac{3}{1}$, and the y-intercept point is $(0, 11)$.



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

$(3, 2)$

c) Verify that the ordered pair named in part (a) is a solution to $y = \frac{1}{3}x + 1$.

$$2 = \frac{1}{3}(3) + 1$$
$$2 = 1 + 1$$
$$2 = 2$$

The left and right sides of the equation are equal.

d) Verify that the ordered pair named in part (a) is a solution to $y = -3x + 11$.

$$2 = -3(3) + 11$$
$$2 = -9 + 11$$
$$2 = 2$$

The left and right sides of the equation are equal.