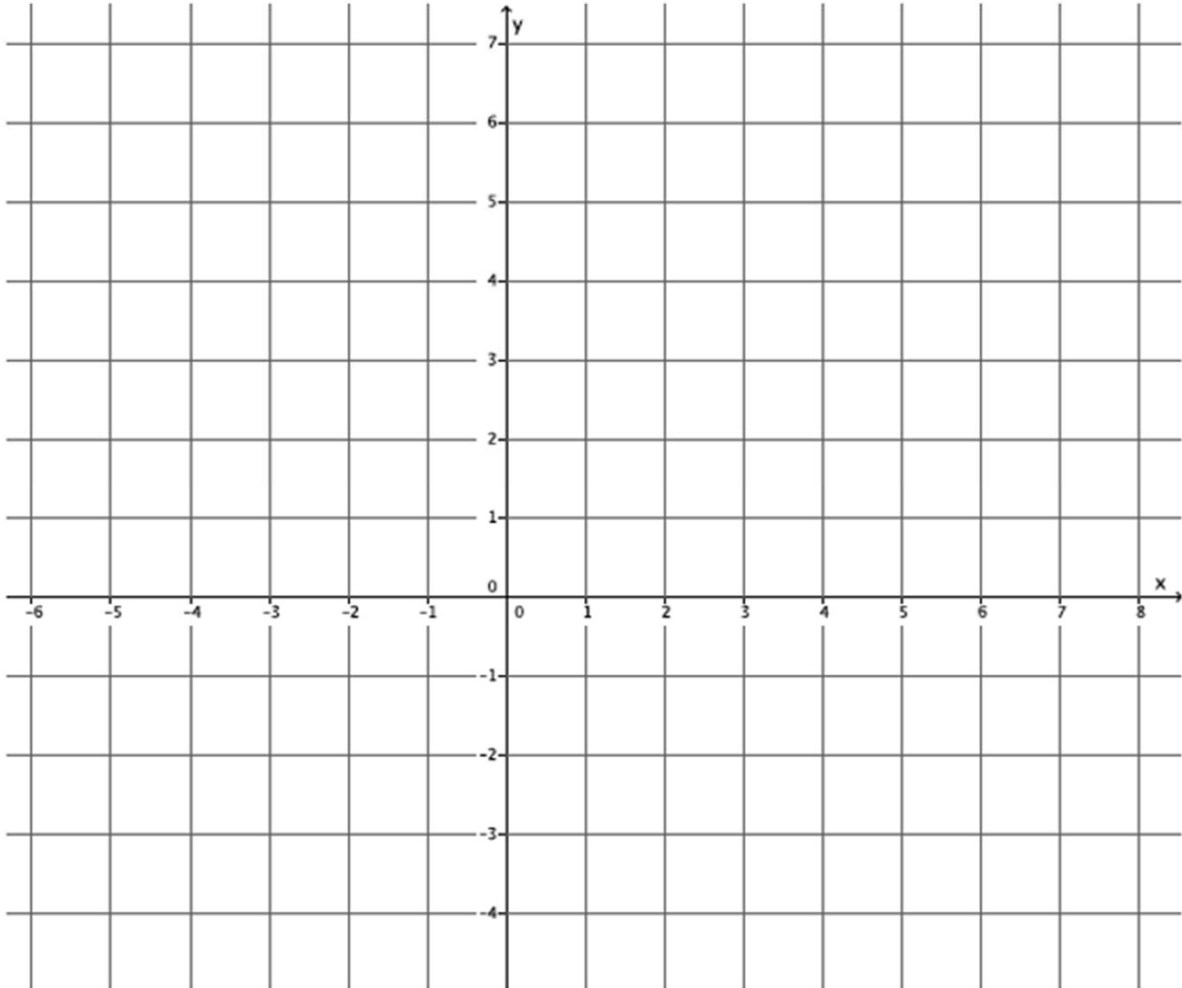# System of Equations (No Solution)

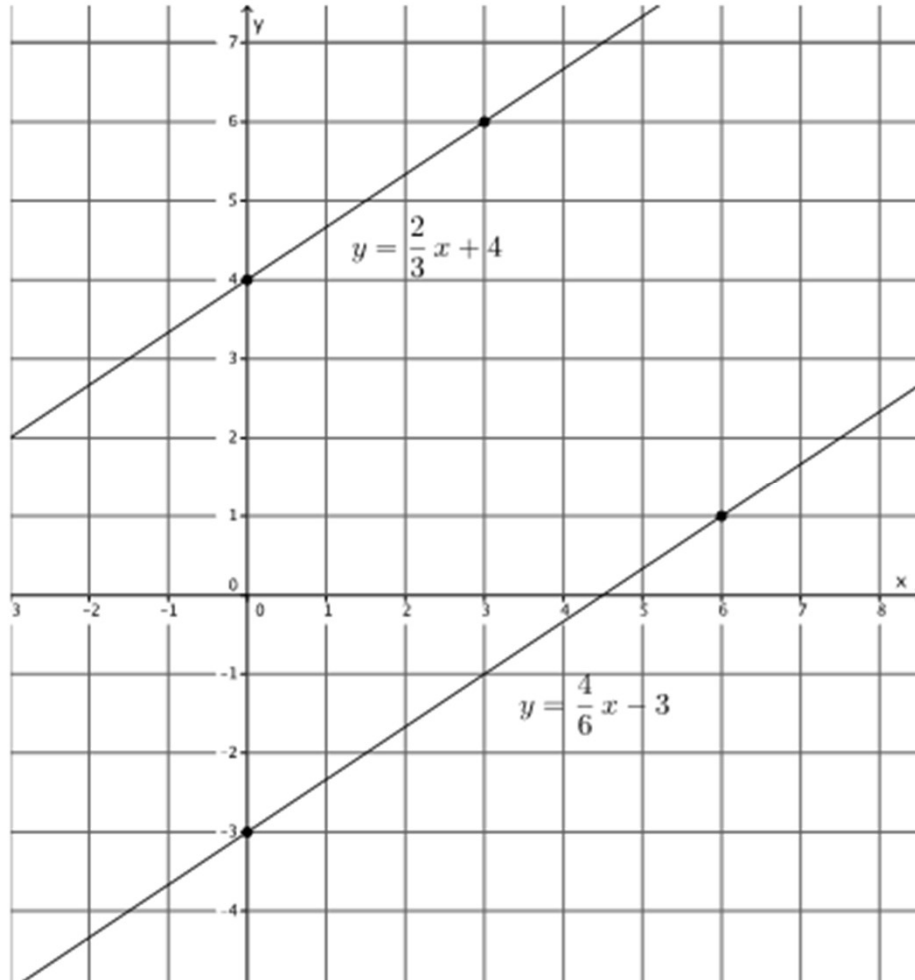1. Sketch the graphs of the system. $\begin{cases} y = \frac{2}{3}x + 4 \\ y = \frac{4}{6}x - 3 \end{cases}$

a) Identify the slope of each equation. What do you notice?

b) Identify the y-intercept point of each equation. Are the y-intercept points the same or different?

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$$y = \frac{2}{3}x + 4$$

$$y = \frac{4}{6}x - 3$$

a) Identify the slope of each equation. What do you notice?

The slope of the first equation is $\frac{2}{3}$, and the slope of the second equation is $\frac{4}{6}$. The slopes are equal.

b) Identify the y-intercept point of each equation. Are the y-intercept points the same or different?

The y-intercept points are $(0, 4)$ and $(0, -3)$. The y-intercept points are different.