

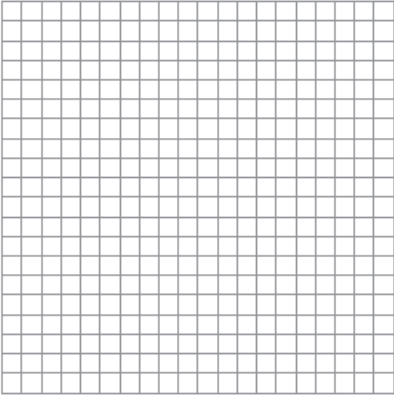
7.2_1 Assignment	Period (circle one): 5 7	Date:	Name:
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Write a system of linear inequalities that represents each problem situation. Remember to define your variables.

Eiko is drawing caricatures at a fair for 8 hours. She can complete a small drawing in 15 minutes and charges \$10 for the drawing. She can complete a larger drawing in 45 minutes and charges \$25 for the drawing. Eiko hopes to make at least \$200 at the fair.

Eiko is wondering if he could draw 8 small caricatures and 4 large drawings. Determine whether this amount of small and large drawings are solutions to the system of linear inequalities. Explain your reasoning.

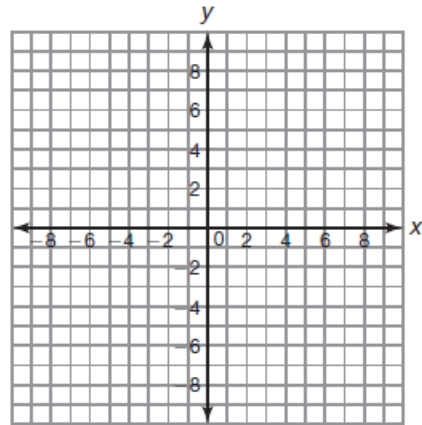
Graph the system of linear inequalities. Make sure to label your axes and include your scale



Identify two different solutions to the system of inequalities. Explain what the solutions represent in terms of the problem situation.

Graph the system of inequalities

$$\begin{cases} y \geq -\frac{1}{3}x + 4 \\ y \geq 2x + 5 \end{cases}$$



Solve the system of linear equations using any method

$$\begin{cases} 2x - 3y = 6 \\ 4x + 8y = -2 \end{cases}$$

$$\begin{cases} y = \frac{2}{3}x - 4 \\ y = x - 5 \end{cases}$$