EXAMPLE:

CREATE YOUR OWN WORD PROBLEM

Original Word Problem (2 points)

Alex's goal is to sell $100 worth of tickets to the school play. The tickets are $4 for students and $10 for adults.

How many student tickets does he need to sell if he sells 6 adult tickets?

Create and Equation (3 points) and Solve (10 points)

Standard Form: $4x + 10y = 100$

$-4x \quad -4x$

$\frac{10y}{10} = \frac{100}{10} - \frac{4x}{10}$

Slope Intercept Form: $y = 10 - \frac{4x}{10}$

simplified: $y = 10 - \frac{2}{5}x$ OR $y = -\frac{2}{5}x + 10$

Solve: * plug in 6 for y.

$4x + 10(6) = 100$

$4x + 60 = 100$

$-60 \quad -60$

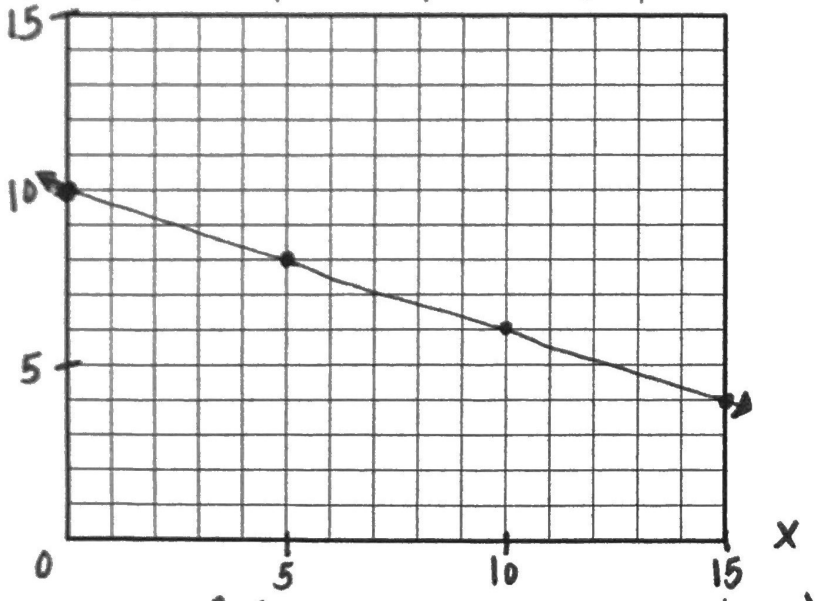
$4x = 40$

$\frac{4x}{4} = \frac{40}{4}$

$x = 10$

Graph (3 points)

* Use slope-intercept form to graph *



Slope (m): $-\frac{2}{5}$ Y-Intercept (b or 0,b): 10 or (0,10)

① Graph Y-intercept
② Use slope to graph additional points

down 2 / right 5 OR up 2 / left 5

Draw a picture to illustrate (2 points)