Slope-Intercept vs. Standard Form

Part I: Graphing an equation in **Slope-Intercept Form**:

$y = -2x + 4$

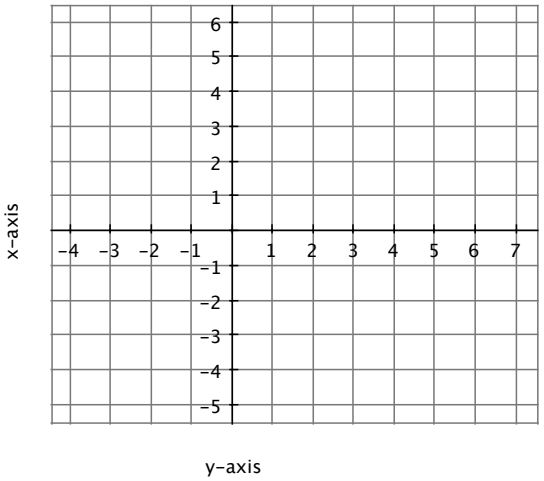
Identify:

slope = _____

y-intercept = (____,____)

Graph, then identify:

x-intercept = (____,____)



Part 2: Graphing an equation in **Standard Form**: $6x + 3y = 12$

Option 1: $6x + 3y = 12$
Change into Slope Intercept Form:

$6x + 3y = 12$

$-6x \quad = -6x$ 1)Subtract $6x$ from both sides of the equation

$3y = -6x + 12$

$\frac{3y}{3} = \frac{-6x}{3} + \frac{12}{3}$ 2) Divide both sides of the equation by 3

$y = -2x + 4$ 3) Simplify

$6x + 3y = 12$ and $y = -2x + 4$ are the same _____.

Option 2: $6x + 3y = 12$
Use the x and y intercepts:

To find the x-intercept, plug in y=___.

$6x + 3y = 12$

x-intercept (____,____)

To find the y-intercept, plug in x=___.

$6x + 3y = 12$

y-intercept (____,____)

Do the intercepts match the intercepts in the graph above?_____

Could we have graphed the line $6x + 3y = 12$ if we only found the intercepts? _____ How? _____