

4.4 Standard Form

$$Ax + By = C$$

**To graph using standard form, we will be graphing intercepts.

-To find the x-intercept: plug 0 in for y and solve for x. $(\#, 0)$

-To find the y-intercept: plug 0 in for x and solve for y. $(0, \#)$

Find the x- and y-intercepts.

Ex. 1) $2x + 7y = 28$

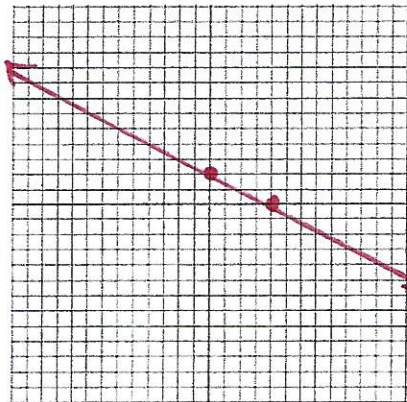
$$\frac{2x}{2} = \frac{28}{2} \quad \frac{7y}{7} = \frac{28}{7}$$

$$x = 14 \quad y = 4$$

$$(14, 0) \quad (0, 4)$$

Graph the equation using intercepts.

Ex. 3) $x + 2y = 4$



$$x = 4$$

$$(4, 0)$$

$$\frac{2y}{2} = \frac{4}{2}$$

$$y = 2$$

$$(0, 2)$$

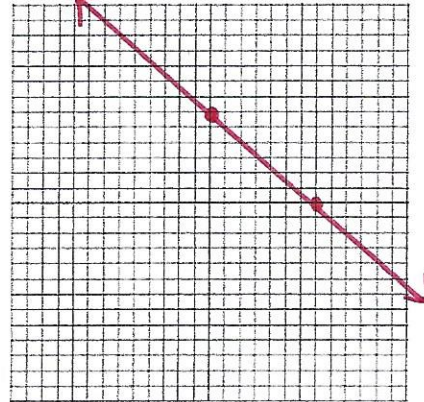
Ex. 2) $3x + 2y = 6$

$$\frac{3x}{3} = \frac{6}{3} \quad \frac{2y}{2} = \frac{6}{2}$$

$$x = 2 \quad y = 3$$

$$(2, 0) \quad (0, 3)$$

Ex. 4) $6x + 7y = 42$



$$\frac{6x}{6} = \frac{42}{6}$$

$$x = 7$$

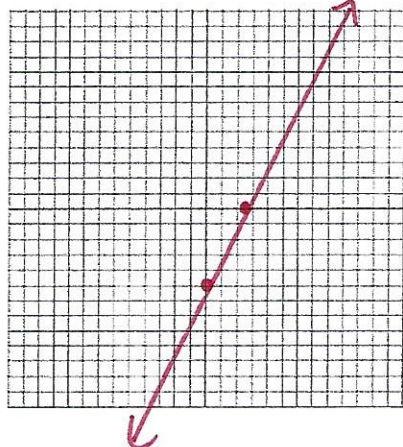
$$(7, 0)$$

$$\frac{7y}{7} = \frac{42}{7}$$

$$y = 6$$

$$(0, 6)$$

Ex. 5) $4x - 2y = 10$



$$\frac{4x}{4} = \frac{10}{4}$$

$$x = \frac{5}{2}$$

$$\left(\frac{5}{2}, 0\right)$$

$$\frac{-2y}{-2} = \frac{10}{-2}$$

$$y = -5$$

$$(0, -5)$$

Ex. 6) $-3x + 5y = 15$

