

2.5 Standard Form

x-intercept:

the point where
the line crosses the
x-axis

y-intercept:

the point where the
line crosses the y-axis

Standard Form:

$$\boxed{A}x + \boxed{B}y = \boxed{C}$$

a, b, c can be any
number

$$3x + 4y = 24?$$

Finding the
x and y
intercepts

Step 1: Find the y-intercept

x=0, plug into equation
and solve for y

Step 2: Find the x-int.

y=0, plug into equat.
solve for x

$$3x + 4y = 24$$

$$x = 0$$

$$3(0) + 4y = 24$$

$$0 + 4y = 24$$

$$\frac{4y}{4} = \frac{24}{4}$$

$$y = 6$$

$$(0, 6)$$

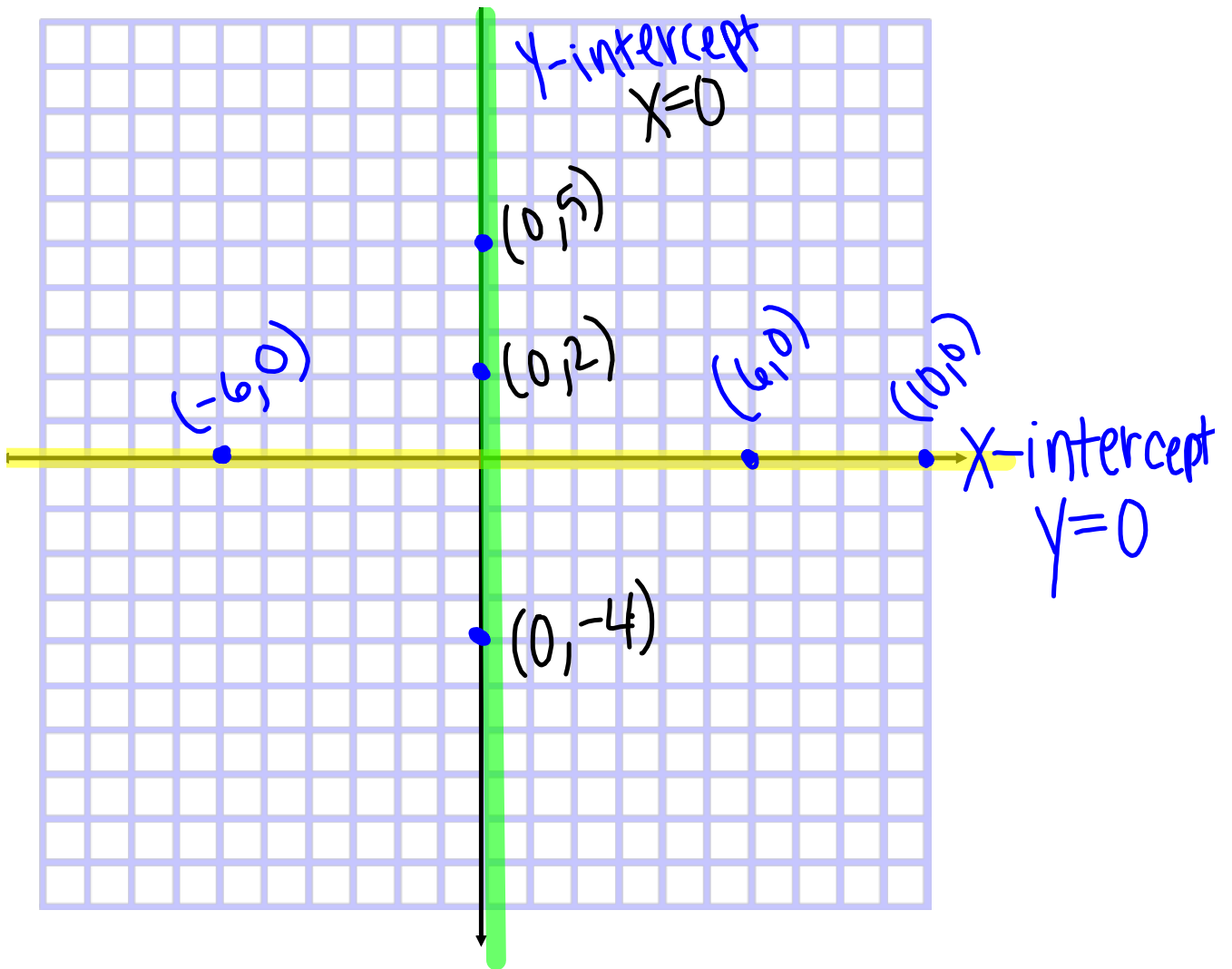
$$y = 0$$

$$3x + 4(0) = 24$$

$$3x + 0 = 24$$

$$\frac{3x}{3} = \frac{24}{3}$$

$$x = 8$$
$$(8, 0)$$



$$\mathbf{a. \quad 5x - 6y = 60}$$

① Find the y-intercept
 $x=0$

$$5(0) - 6y = 60$$

$$0 \quad \boxed{-6y} = 60$$
$$\underline{\quad -6} \quad \underline{\quad -6}$$

$$y = -10$$
$$(0, -10)$$

② Find the x-intercept

$$y=0$$

$$5x - 6(0) = 60$$

$$5x - 0 = 60$$

$$\frac{5x}{5} = \frac{60}{5}$$

$$x = 12$$

$$(12, 0)$$

$$X + 3y = 2$$

y-int.

$$1(0) + 3y = 2$$

$$0 + 3y = 2$$

$$\cancel{3}y = \frac{2}{\cancel{3}}$$

$$y = \frac{2}{3}$$

x-int.

$$X + 3(0) = 2$$

$$X + 0 = 2$$

$$X = 2$$