

Name

3.3

Alg I

Graph Using Intercepts

I can graph a linear equation using intercepts.

Ch. 3 Quiz

X-intercept: The x-coordinate where the graph crosses the x-axis

Y-intercept: The y-coordinate where the graph crosses the y-axis

* To find the x-intercept, set y to 0 and solve $(a, 0)$

* To find the y-intercept, set x to 0 and solve $(0, b)$

Example 1:

1) $3x + 2y = 6$

X-intercept: $3x + 2(0) = 6$
 $(2, 0)$

$$\begin{aligned} 3x &= 6 \\ \frac{3x}{3} &= \frac{6}{3} \\ x &= 2 \end{aligned}$$

Y-intercept: $3(0) + 2y = 6$
 $(0, 3)$

$$\begin{aligned} 2y &= 6 \\ \frac{2y}{2} &= \frac{6}{2} \\ y &= 3 \end{aligned}$$

2) $4x - 2y = 10$

X-intercept: $4x - 2(0) = 10$
 $(2.5, 0)$

$$\begin{aligned} 4x &= 10 \\ \frac{4x}{4} &= \frac{10}{4} \\ x &= 2.5 \end{aligned}$$

Y-intercept: $4(0) - 2y = 10$
 $(-5, 0)$

$$\begin{aligned} -2y &= 10 \\ \frac{-2y}{-2} &= \frac{10}{-2} \\ y &= -5 \end{aligned}$$