TOPIC: GRAPH LINEAR EQUATIONS USING INTERCEPTS

Identify x- and y-Intercepts

◆ The **intercepts** of a line are the points where the line _____ the x-axis and y-axis.

| EXAMPLE | Identify the x- and y-intercepts on the graph below. |

x-intercept	y-intercept
x-value when graph crosses [x | y] axis	y-value when graph crosses [x | y] axis
[x | y]-value is always 0	[x | y]-value is always 0
x-intercept:	y-intercept:
$x =$ ____	$y =$ ____
(____, ____)	(____, ____)
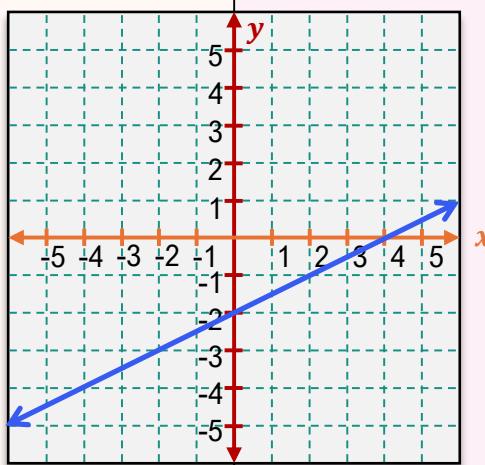
◆ Given an equation, find x**-int** by setting ____ = 0 & solve for ____. Find y**-int** by setting ____ = 0 & solve for ____.

| EXAMPLE | Find the x- and y-intercepts given the equation. |

$$x + 2y = 8$$

x**-int**

Plug in ____ = 0

(____, ____)

y**-int**

Plug in ____ = 0

(____, ____)

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EXAMPLE   Find the x and y intercepts in the line graph.
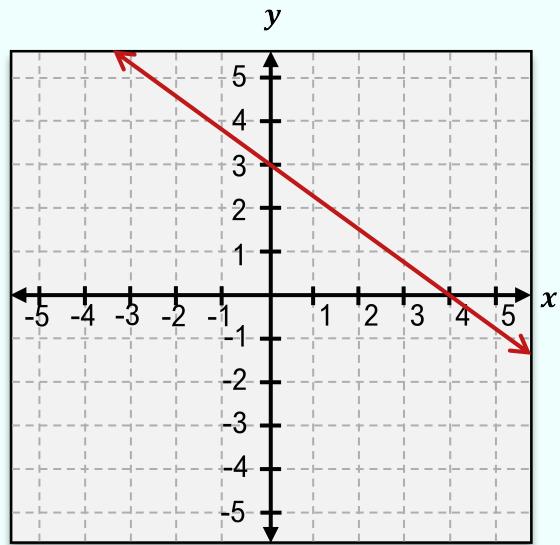
PRACTICE   Find the x- and y-intercepts of the line $2x + 3y = 12$.

PRACTICE   Find the x- and y-intercepts of the line $\dfrac{x}{4} - \dfrac{y}{3} = 1$.