Finding x and y-intercepts

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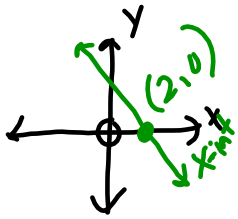


X-intercept - Where the graph crosses the x-axis (y = 0)

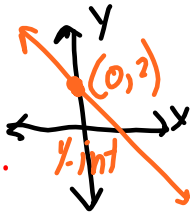
Answer is an Ordered Pair : (x, 0)

↑ the value of X-int.

Y-intercept - Where the graph crosses the y-axis (x = 0)

Ordered Pair: (0, y)

↑ value of y-int.



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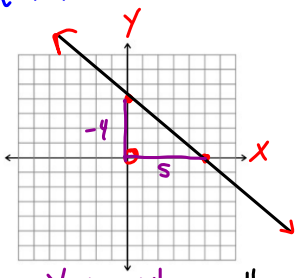
Examples:

$4x + 5y = 20$

X-int	Y-int
$\frac{4x}{4} = \frac{20}{4}$	$\frac{5y}{5} = \frac{20}{5}$
$x = 5$	$y = 4$
$(5, 0)$	$(0, 4)$



$y = mx + b$

$y = -\frac{4}{5}x + 4$

$4x + 5y = 20$

$-4x \quad -4x$

$\frac{5y}{5} = \frac{-4x}{5} + \frac{20}{5}$

$y = -\frac{4}{5}x + 4$

$2x + y = 2$

X-int	Y-int
$2x = 2$	$y = 2$
$x = 1$	$(0, 2)$
$(1, 0)$	

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$x + y = 5$

X-int	Y-int
$x = 5$	$y = 5$
$(5, 0)$	$(0, 5)$

$y = 1/2x - 4$

X-int	Y-int
$0 = \frac{1}{2}x - 4$	$y = -4$
$+4 \quad +4$	
$4 = \frac{1}{2}x$	$(0, -4)$
$\frac{1}{2} \quad \frac{1}{2}$	
$x = 8$	
$(8, 0)$	

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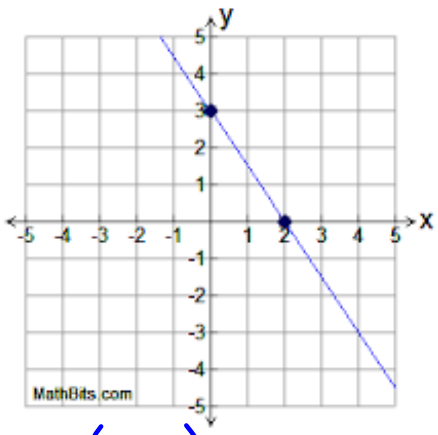
On Own:

①

7x + 3y = –21

X-int	Y-int
$7x = -21$	$3y = -21$
$x = -3$	$y = -7$
$(-3, 0)$	$(0, -7)$

②



X-int: $(2, 0)$

y-int: $(0, 3)$

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