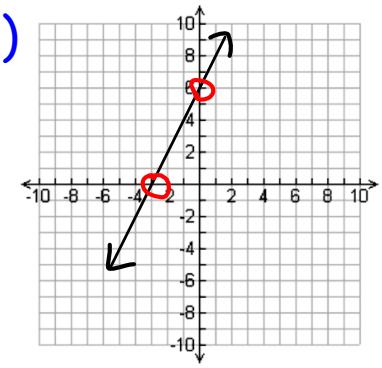
Do Now

Find the x and y intercepts from the graph

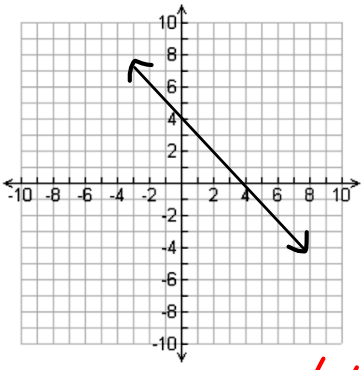
1)



x-intercept = (-3,0)

y intercept = (0,6)

2)



(x,y)

x-intercept = (4,0)

y intercept = (0,4)

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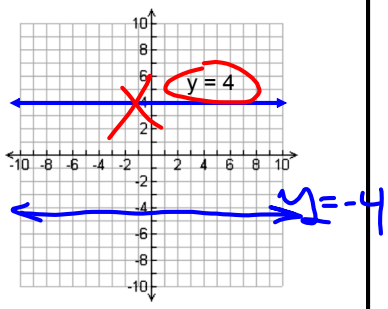
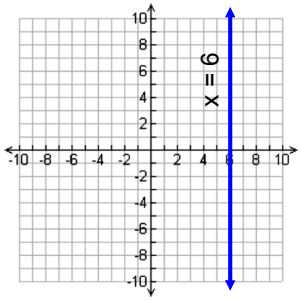
Homework Answers

1)

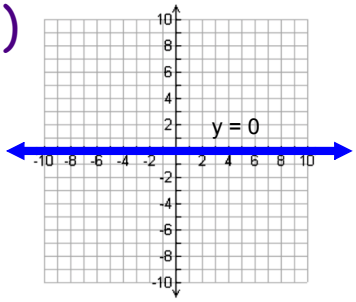
x	y
0	4
-2	4
4	4



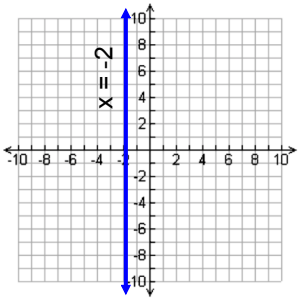
2)



3)



4)



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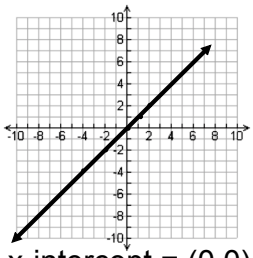
Homework Answers

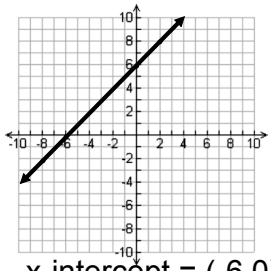
5)



x-intercept = (0,0)

y-intercept = (0,0)

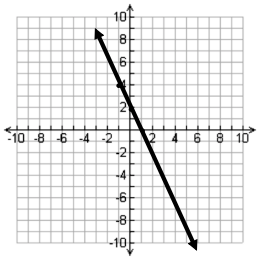
7)



x-intercept = (-6,0)

y-intercept = (0,6)

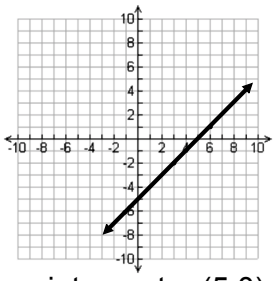
6)



x-intercept = (1,0)

y-intercept = (0,2)

8)



x-intercept = (5,0)

y-intercept = (0,-5)

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Finding X and Y intercepts

x-intercept:

Occurs when line crosses over the x-axis (when y = 0)

But what do we do if we are only given an equation and not a graph?

Find x-intercept

Set y=0 and then solve for x

ex) $2x + y = 4$

$2x + (0) = 4$

$\frac{\cancel{2}x}{\cancel{2}} = \frac{4}{2}$

$x = 2$

x-int: $(2,0)$

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Finding X and Y intercepts

y-intercept:

Occurs when line crosses over the y-axis (when x = 0)

But what do we do if we are only given an equation and not a graph?

Find y-intercept

Set x=0 and then solve for y

ex) 2x + y = 4

$2(0)+y=4$

$0+y=4$

$y=4$

y-int=(0,4)

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Finding X and Y intercepts

Find the x and y intercepts

1) 3x + 2y = 18

x-int: (y=0)	y-int: (x=0)
$3x+2y=18$	$3x+2y=18$
$3x+2(0)=18$	$3(0)+2y=18$
$\frac{3x}{3}+0=\frac{18}{3}$	$0+\frac{2y}{2}=\frac{18}{2}$
$x=6$	$y=9$
x-int=(6,0)	y-int: (0,9)

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Finding X and Y intercepts

Find the x and y intercepts

2) $y = 2x - 2$

x-int ($y=0$)	y-int ($x=0$)
$y = 2x - 2$	$y = 2x - 2$
$0 = 2x - 2$	$y = 2(0) - 2$
$+2 \quad +2$	$y = 0 - 2$
$\frac{2}{2} = \frac{2x}{2}$	$y = -2$
$1 = x$	y-int: $(0,-2)$
x-int: $(1,0)$	

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Finding X and Y intercepts

Find the x and y intercepts

3) $3x + 2y = 1$

x-int ($y=0$)	y-int ($x=0$)
$3x + 2y = 1$	$3x + 2y = 1$
$3x + 2(0) = 1$	$3(0) + 2y = 1$
$\frac{3x}{3} = \frac{1}{3}$	$\frac{2y}{2} = \frac{1}{2}$
$x = \frac{1}{3}$	$y = \frac{1}{2}$
x-int: $(\frac{1}{3}, 0)$	y-int $= (0, \frac{1}{2})$

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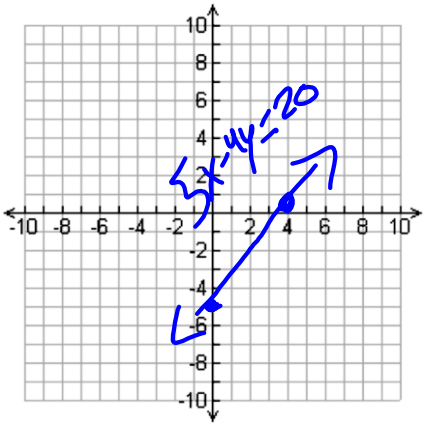
Finding X and Y intercepts

A. Find the x and y intercepts

B. Plot the line

4) $5x - 4y = 20$

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



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