WORKSHEET: Intercept Method Graphing of a Line

Name Solutions

Graph the following equations using the Intercept Method.

a) $y = 2x + 10$

y-int, let $x=0$

$y = 2(0) + 10$

$y = 10$

$\therefore$ $(0,10)$ is y-int

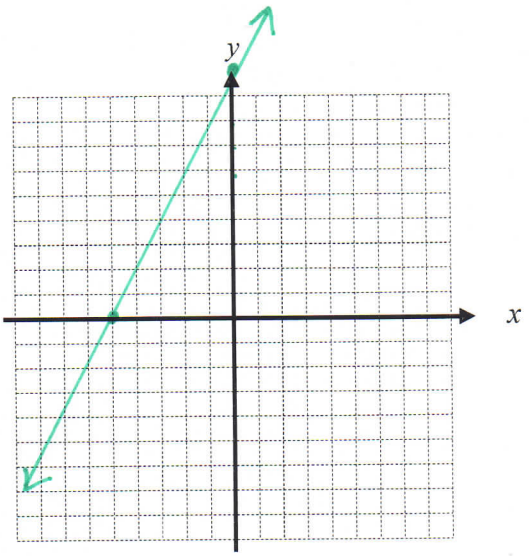
x-int, let $y=0$

$0 = 2x + 10$

$\frac{-10}{2} = \frac{2x}{2}$

$-5 = x$

$\therefore$ $(-5,0)$ is x-int.



b) $y = -x - 1$

y-int, let $x=0$

$y = -(0) - 1$

$y = -1$

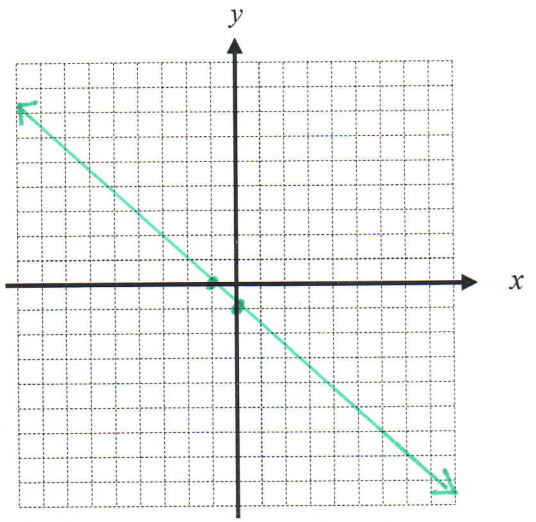
$\therefore$ $(0,-1)$ is y-int.

x-int, let $y=0$.

$0 = -x - 1$

$x = -1$

$\therefore$ $(-1,0)$ is x-int.



c) $y = \frac{1}{4}x - 2$

y-int

$y = \frac{1}{4}(0) - 2$

$y = -2$

$\therefore$ $(0,-2)$ is y-int.

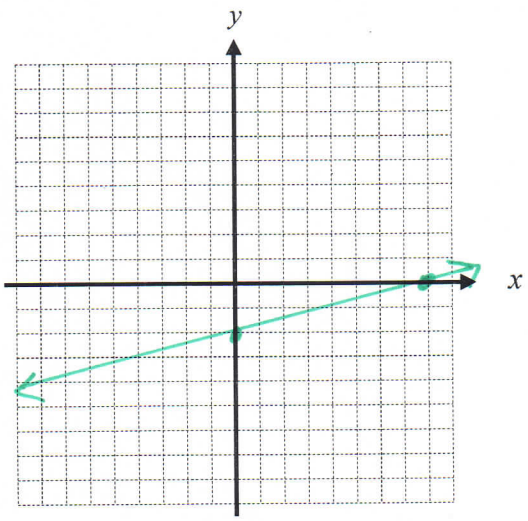
x-int

$0 = \frac{1}{4}x - 2$

$2 = \frac{1}{4}x$

$8 = x$

$\therefore$ $(8,0)$ is y-int.



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d) $y = \frac{2}{3}x + 4$

y-int

$y = \frac{2}{3}(0) + 4$

$y = 4$

$\therefore (0,4)$ is y-int.

x-int

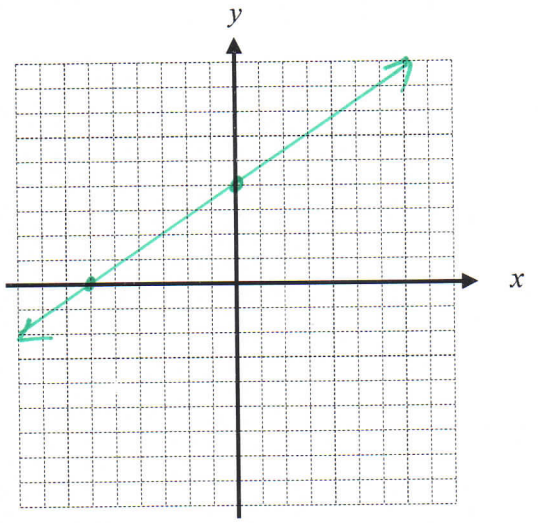
$0 = \frac{2}{3}x + 4$

$-4 = \frac{2}{3}x$

$\frac{-12}{2} = \frac{2x}{2}$

$-6 = x$

$\therefore (-6,0)$ is x-int.



e) $y = -4x + 12$

y-int

$y = -4(0) + 12$

$y = 12$

$\therefore (0,12)$ is y-int.

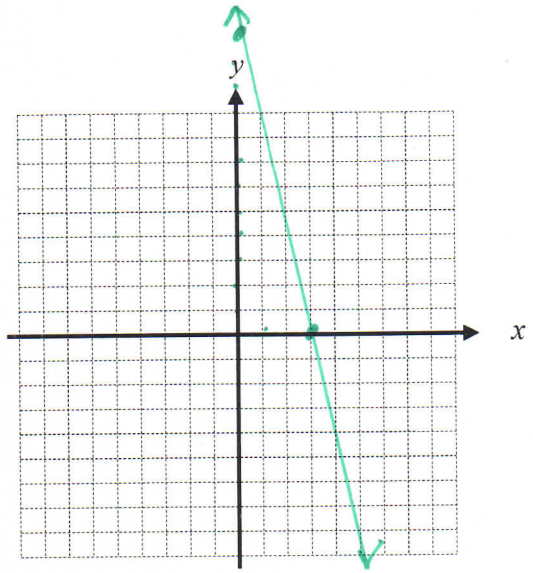
x-int

$0 = -4x + 12$

$\frac{4x}{4} = \frac{12}{4}$

$x = 3$

$\therefore (3,0)$ is x-int.



f) $y = 5x + 15$

y-int

$y = 5(0) + 15$

$y = 15.$

$\therefore (0,15)$ is y-int.

x-int

$0 = 5x + 15$

$\frac{-15}{5} = \frac{5x}{5}$

$-3 = x$

$\therefore (-3,0)$ is x-int.