Principles of Algebra Name/Date Clee / Today

WS 7B.2 – More Graphing with Slope and y- Intercept

Put each equation into slope-intercept form, then graph.

1. $2y - 10x = -12$

$y = mx + b$ (solve equation for y)

$+10x \quad +10x$

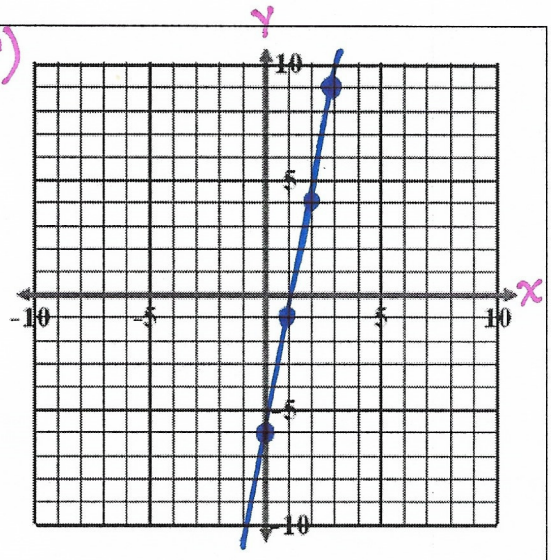
$\frac{2y}{2} = \frac{10x}{2} - \frac{12}{2}$

$y = 5x - 6$

m b

$m = \frac{5}{1}$ ← rise (up 5) / ← run (right 1)

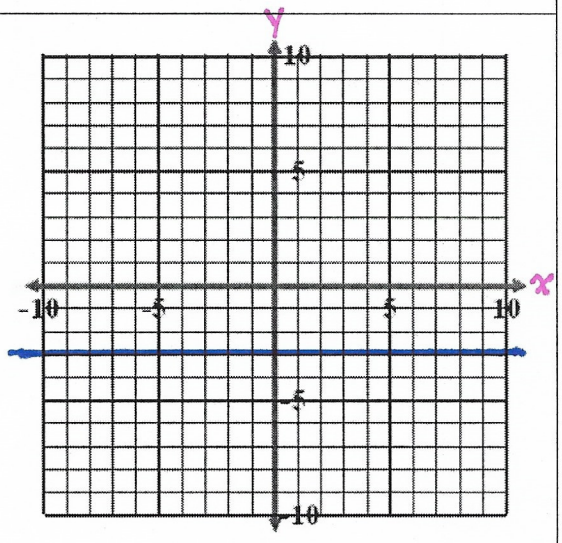
$b = -6$ ← y-intercept (start here on y-axis)



2. $y = -3$

y = constant is always a horizontal line

Memorize!



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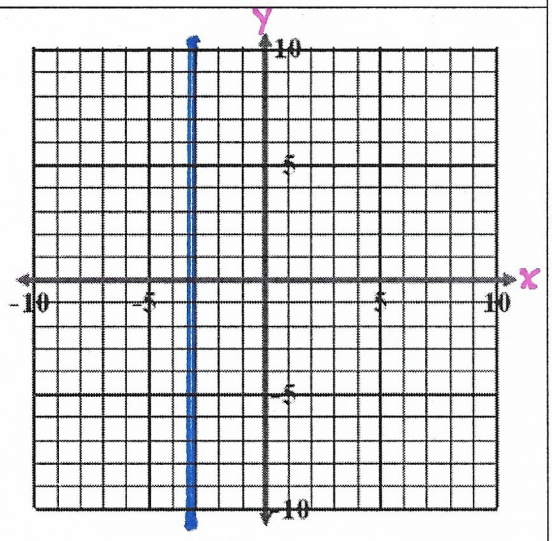


4. $\frac{y}{2}+\frac{x}{4}=\frac{1}{2}$ ·4 ·4 ·4

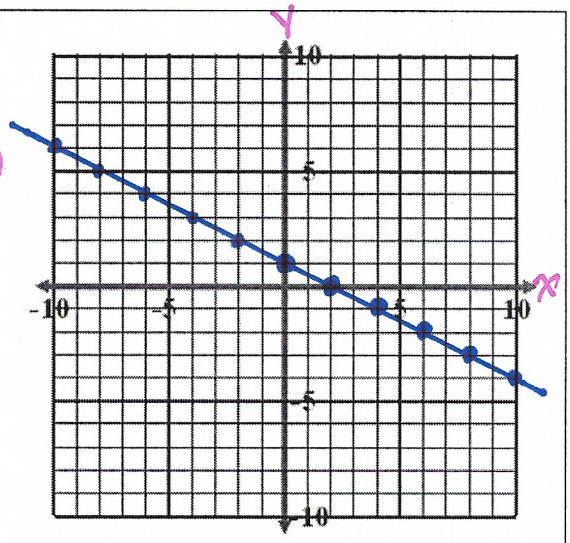
$2y + 1x = 2$
$-1x \quad -1x$

$\frac{2y}{2} = \frac{-1x}{2} + \frac{2}{2}$

$y = -\frac{1}{2}x + 1$
m b

$m = \frac{-1}{2}$ ← rise (down 1) / run (right 2)

$b = 1$ ← y-intercept (start here on y-axis)



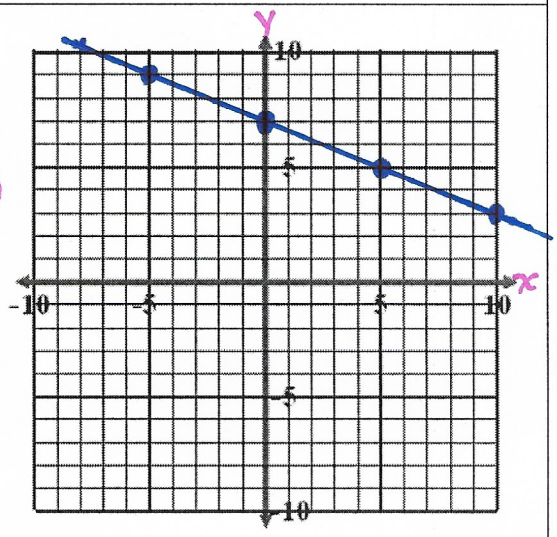
5. $5y - 35 = -2x$
$+35 \quad +35$

$\frac{5y}{5} = \frac{-2x}{5} + \frac{35}{5}$

$y = -\frac{2}{5}x + 7$
m b

$m = \frac{-2}{5}$ ← rise (down 2) / run (right 5)

$b = 7$ ← y-intercept (start here on y-axis)



6. $3x - 4y = 20$
$-3x \quad -3x$

$\frac{-4y}{-4} = \frac{-3x}{-4} + \frac{20}{-4}$

$y = \frac{3}{4}x - 5$
m b

$m = \frac{3}{4}$ ← rise (up 3) / run (right 4)

$b = -5$ ← y-intercept (start here on y-axis)