

P. 16-17	Graphing Slope-Intercept Form	2.3
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Warm-up:

Get out your homework. Working with a partner complete 2.3 Slope and Slope Intercept Form Practice worksheet

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Warm-up : Find the slope of the line containing these points

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1. $\overset{x_1}{(-3)}, \overset{y_1}{(-2)}$ and $\overset{x_2}{(7)}, \overset{y_2}{(-5)}$ 2. $(8, 3)$ and $(10, 5)$

$$m = \frac{-5 - (-2)}{7 - (-3)}$$

$$m = \frac{-3}{10}$$

$$m = \frac{5 - 3}{10 - 8}$$

$$m = \frac{2}{2} = 1$$

Recall...

Slope intercept form:

$$y = m x + b$$

↑ ↑
slope y-intercept

Identify the slope and y-intercept of each equation

1. $y = 3x + 5$

$$\begin{array}{l} m \text{ slope: } \underline{3} \\ b \text{ y-int: } \underline{5} \end{array}$$

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

$$\begin{array}{l} \text{slope: } \underline{\frac{2}{3}} \\ \text{y-int: } \underline{-4} \end{array}$$

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3. $y = -x - 4$

$$\begin{array}{l} \text{slope: } \underline{-1} \\ \text{y-int: } \underline{-4} \end{array}$$

4. $y = 2$

$$\begin{array}{l} \text{slope: } \underline{0} \\ \text{y-int: } \underline{2} \end{array}$$

$$y = 0x + 2$$

↔

$$y = mx + b$$

Special Cases!

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H O Y

Horizontal Lines have a Slope of **0**
and an equation $y = \#$

V U X

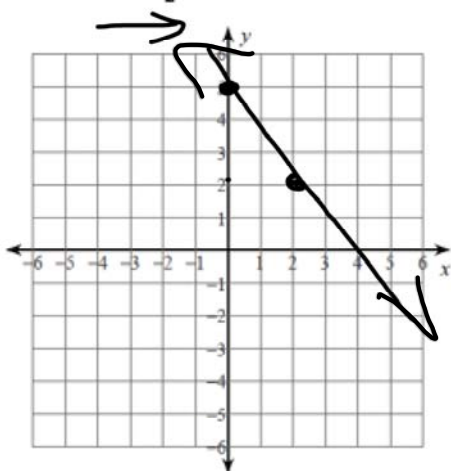
Vertical Lines have a Slope of **Undefined**
and an equation $x = \#$

Graph

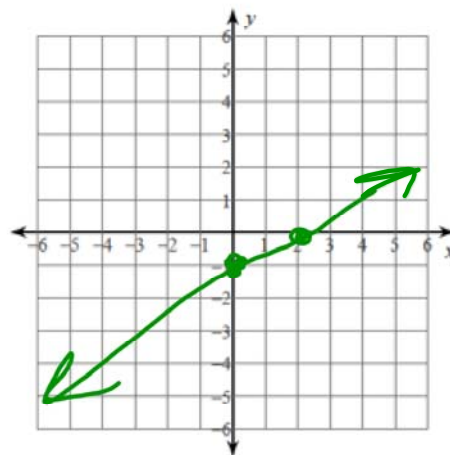
$$y = mx + b$$

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1. $y = -\frac{3}{2}x + 5$



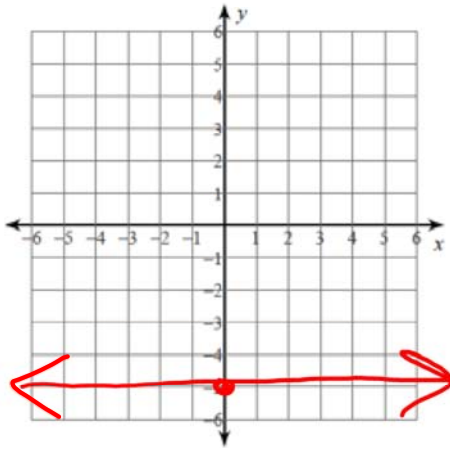
2. $y = \frac{1}{2}x - 1$



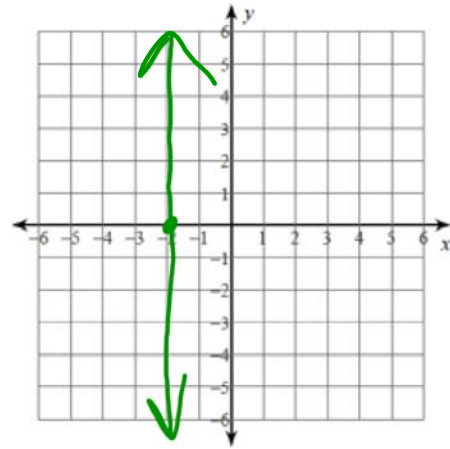
Graph

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3. $y = -5$



4. $x = -2$



Line Gems



Homework:

Graphing Lines in Slope-Intercept Form