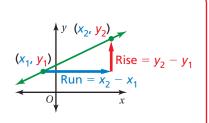# REVIEW: Slopes of Horizontal and Vertical Lines

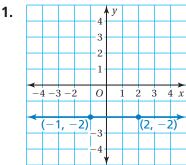Name _____

Key Concept and Vocabulary

$$\text{slope} = \frac{\text{rise}}{\text{run}} = \frac{\text{change in } y}{\text{change in } x} = \frac{y_2 - y_1}{x_2 - x_1}$$
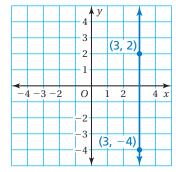
Slope

y (x_2, y_2)
(x_1, y_1)
Rise $= y_2 - y_1$
Run $= x_2 - x_1$

Skill Examples

1.

$(-1, -2)$ $(2, -2)$

$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - (-2)}{2 - (-1)} = \frac{0}{3} = 0$$

⫶ The slope is 0.

2.

$(3, 2)$

$(3, -4)$

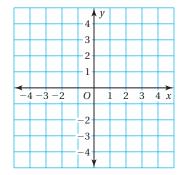$$\text{slope} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - (-4)}{3 - 3} = \frac{6}{0}$$

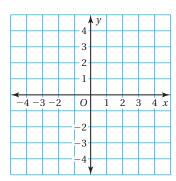⫶ Because division by zero is undefined, the slope of the line in undefined.

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Check your answers at BigIdeasMath.com.

Plot the points. Then find the slope of the line through the points.

3. $(-3, 2)(1, 2)$

Slope = _____

4. $(-2, 2), (-2, -3)$

Slope = _____

5. $(4, -1), (4, 1)$

Slope = _____