Reteaching 6-1

Rate of Change and Slope

OBJECTIVE: Calculating the slope of a line
MATERIALS: None

Example

Calculate the slope of the line shown in the graph.

a. Pick any two points on the line. Write their coordinates. Underline the x-coordinates and circle the y-coordinates. This example uses (0,0), (2,4).

b. The difference of y-coordinates shows the vertical change or rise. Find the rise of the line by subtracting the y-coordinates.
vertical change = rise = 4 - 0 = 4

c. The difference of x-coordinates shows the horizontal change or run. Find the run of the line by subtracting the x-coordinates. Be sure to subtract the x-coordinates in the same order as the y-coordinates.
horizontal change = run = 2 - 0 = 2

d. Find the slope of the line through the two points by forming the ratio of rise to run.
slope = \frac{\text{rise}}{\text{run}} = \frac{4}{2} \text{ or } 2

Exercises

Use steps a-d from the example to find the slope of each line.

1. 

2. 

3. 

4. Draw a horizontal line. Find the slope of the line.

5. Draw a vertical line. Find the slope of the line.