

## Instructions

Complete the following exercises to understand how to find and graph the slope of a line.

### Part 1: Finding the Slope

Use the formula for slope ( $m$ ) given by:

$$m = (y_2 - y_1) / (x_2 - x_1)$$

1. Given two points A(2, 3) and B(6, 7), calculate the slope of the line that passes through these points.

Slope ( $m$ ):

2. For the points C(-1, 4) and D(3, -2), find the slope.

Slope ( $m$ ):

### Part 2: Graphing the Slope

Now that you have calculated the slopes, represent the slopes graphically.

3. Plot the points A(2, 3) and B(6, 7) on the coordinate grid below and draw the line that connects them.

4. Repeat the process with points C(-1, 4) and D(3, -2). Plot these points on the coordinate grid and draw the line connecting them.

### Part 3: Slope-Intercept Form

Write the slope-intercept form of the line for the first pair of points, using the formula:

$$y = mx + b \text{ (where } b \text{ is the } y\text{-intercept)}$$

5. For points A(2, 3) and B(6, 7), what is the equation of the line?

Provide your answer:

6. Now, write the slope-intercept form for the second pair of points C(-1, 4) and D(3, -2). What is the

equation of the line?  
Provide your answer: