Alg 1

3-3 Slope

What is slope?

Definition:

Slope = ————
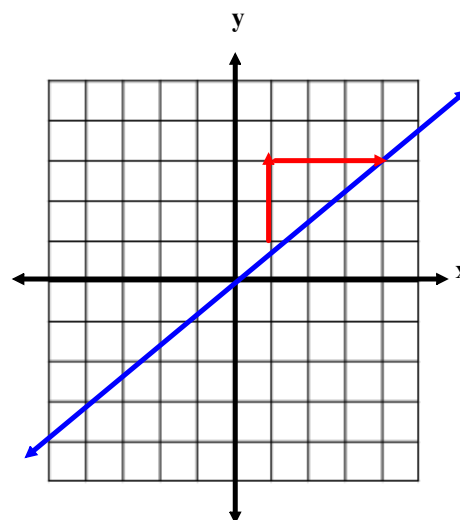
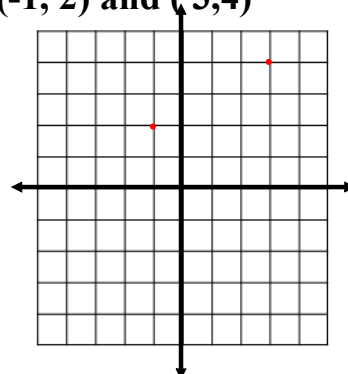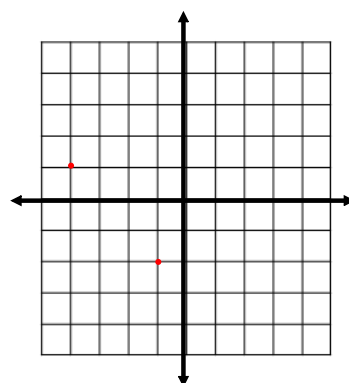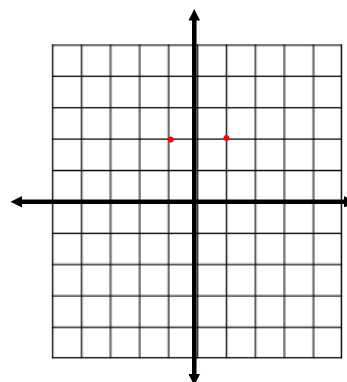Slope Formula

Examples

    1. **Find the slope of a line that passes through (-1, 2) and (3,4)**
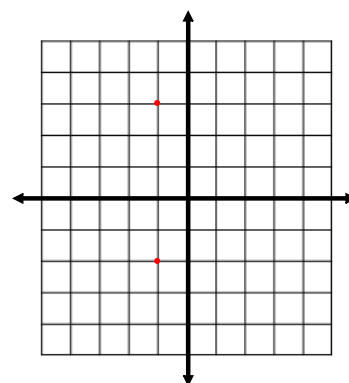
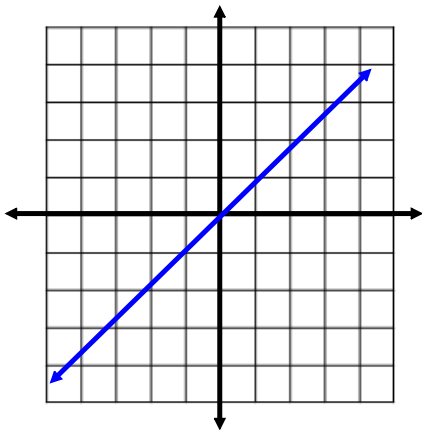   2. **Find the slope of a line that passes through (-1, -2) and (-4 ,1)**

    3. **Find the slope of a line that passes through (1, 2) and (-1 ,2)**

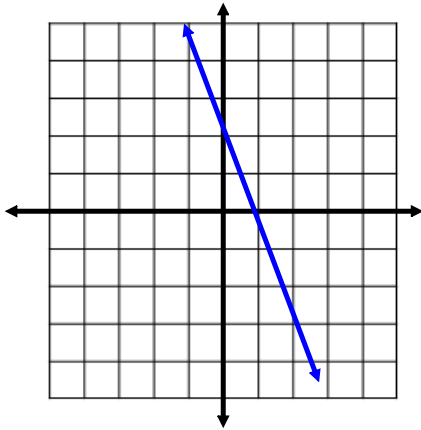   4. **Find the slope of a line that passes through (1, -2) and (1 ,3)**
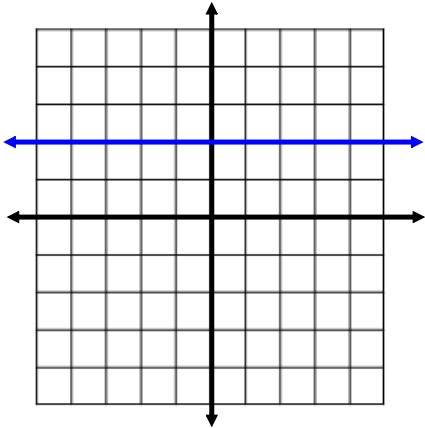
Positive Slope

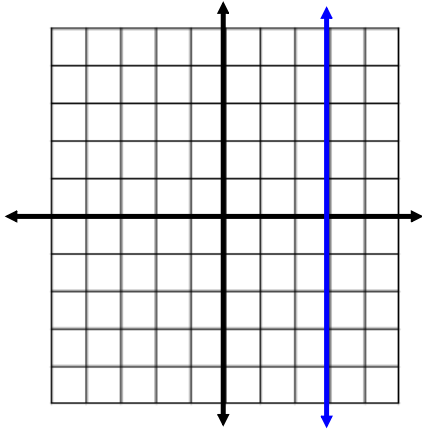**Rising from Left to Right**

Negative Slope

Falling from Left to Right
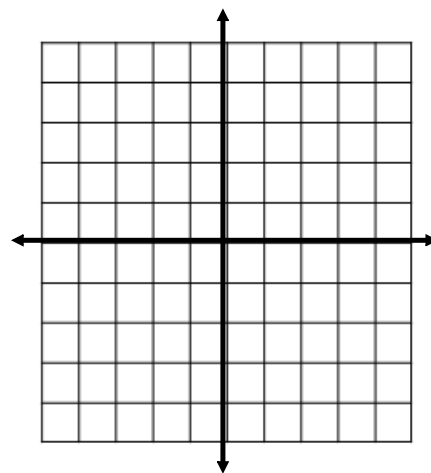
Zero Slope

Horizontal Line

Undefined Slope

Vertical Line

Example: Find Coordinates Given Slope

Find the value of r so that the line through (r, 6) and (10, -3) has a slope of $\frac{-2}{3}$

Find the value of r so that the line through (6, 3) and (r, 2) has a slope of $\frac{1}{2}$

Example: Find Rate of Change

Rate of change means **SLOPE**!!!!!

The graph shows the amount spent on food and drink at U.S. restaurants in recent years.

1. Find the rate of change for 1980-1990 and 1990-2000

1980-1990

$120

$239

$376

1980   1990   2000

1990-2000