

Slope Revisited

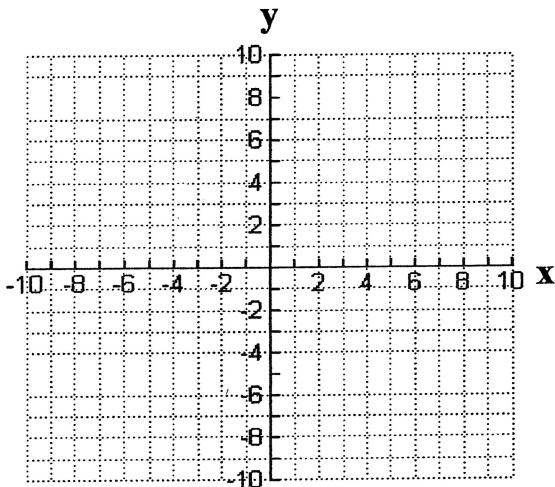
The slope of a line that passes through the points (x_1, y_1) and (x_2, y_2) can be determine using the formula:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

1. Determine the slope of the line that passes through the points A(2, 3) and B(5, 9).

Method 1 (Use Graph)

Method 2 (Use Formula)



2. Use the formula to determine the slope of the line that passes through the points:

a) A(1, 5) and B(-2, -4)

b) A(-8, 4) and B(-12, 6)

Creating equations in the form $y = mx + b$

Algebraically, to determine the equation of a line you require:

- a) the slope (m) and y-intercept (b) or ...
- b) the slope and a point on the line or ...
- c) two points on the line ...

3. Determine the equation of the line that...

a) goes through the point $(1, 5)$ and has a slope of -2 .

b) goes through the point $(-2, 5)$ and has a slope of $\frac{1}{2}$.

4. Determine the equation of the line that...

a) goes through the points $(2, 5)$ and $(4, 1)$.

b) goes through the points $(-3, 6)$ and $(3, 8)$.