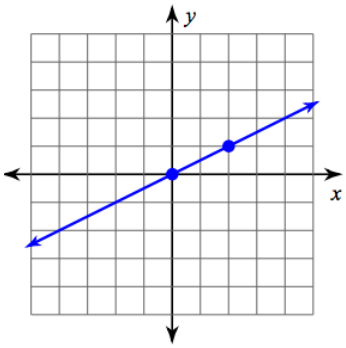
7.1 Find the Slope of a Line

Objective: Master the art of finding the slope of a line.

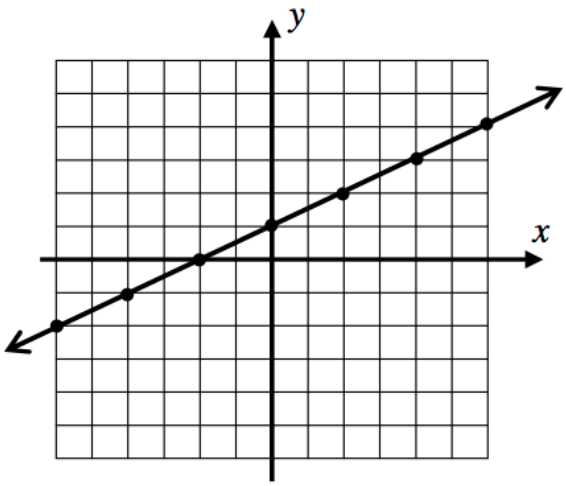


Slope: $\frac{\text{Rise}}{\text{Run}}$

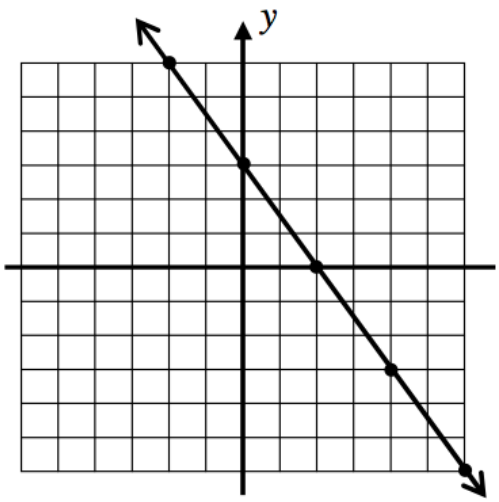
You can find the slope from

1. Graph
2. Points → (3, 1) and (6, 7)
3. Equation → y = 2x + 5

Finding the Slope from a Graph

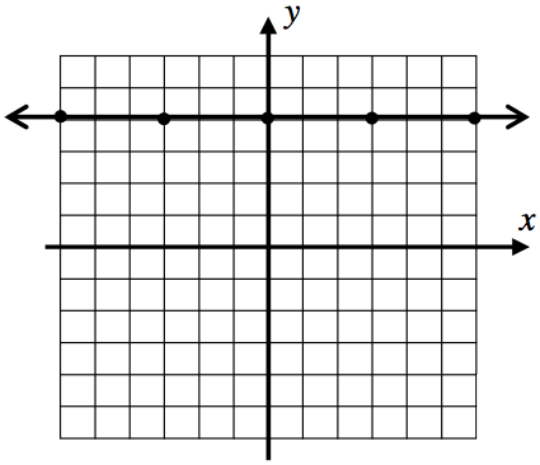


m =

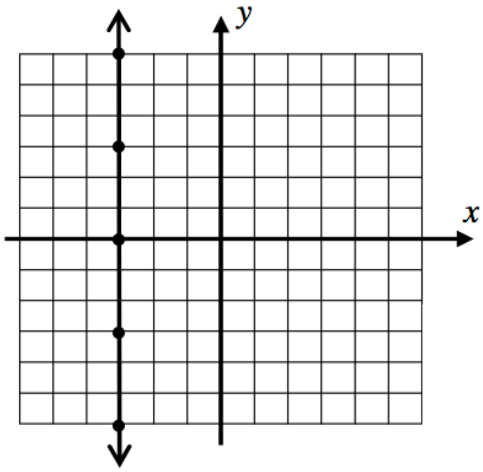


m =

Slope's of Horiztonal and Vertical Lines



m =



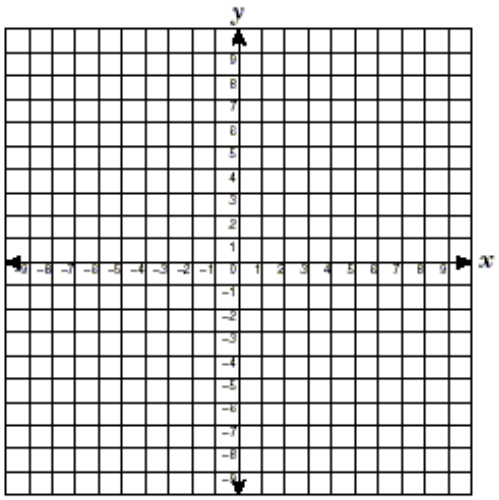
m =

SLOPE FORMULA

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

1.Find the slope of the line that contains (3, 1) and (6, 7) using the slope formula

Step 1: Label Coordinate (x_1, y_1) (x_2, y_2)
Step 2: Write down slope
Step 3: Substitute coordinates into formula
Step 4: Simplify (plug into calculator)
Step 5: Graph coordinates to check answer



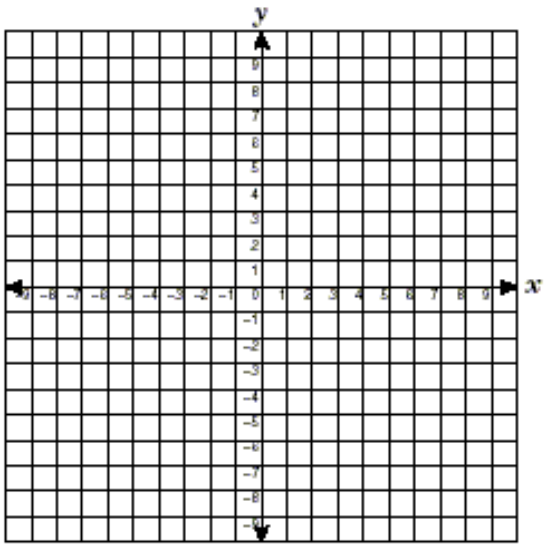
2. $m = \frac{y_2 - y_1}{x_2 - x_1}$ _____

3. $m = \frac{(\quad) - (\quad)}{(\quad) - (\quad)}$ _____

4. _____

2. Find the slope of the line that contains (8, -2) and (2, 6) using the slope formula

Step 1: Label Coordinate (x_1, y_1) (x_2, y_2)
Step 2: Write down slope
Step 3: Substitute coordinates into formula
Step 4: Simplify (plug into calculator)
Step 5: Graph coordinates to check answer



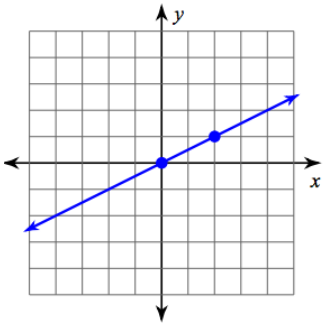
2. _____

3. _____

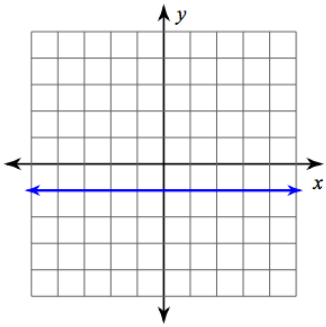
4. _____

Independent Practice

Find the slope from the following graphs



m =



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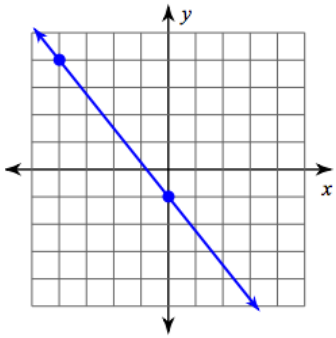
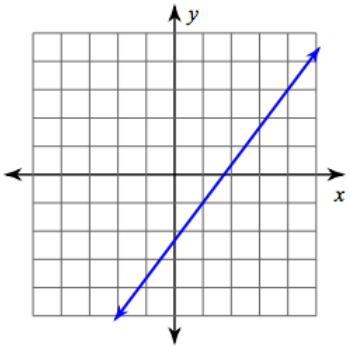


m =



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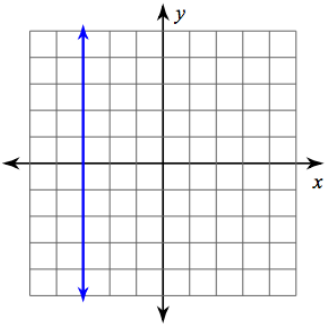
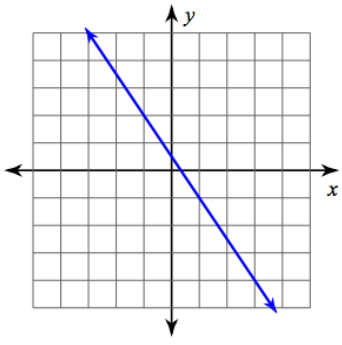


m =



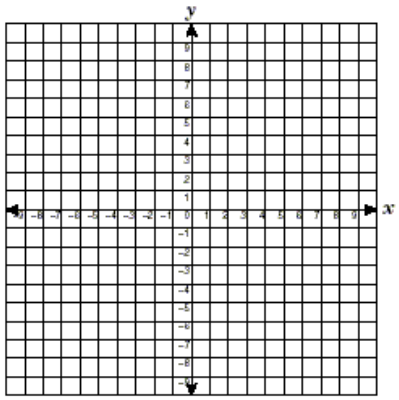
m =

Find the slope of the line that contains (1, 2) and (5, 6) using the slope formula

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

3. $m = \frac{(\quad) - (\quad)}{(\quad) - (\quad)}$

4. _____



Check your work using graph!

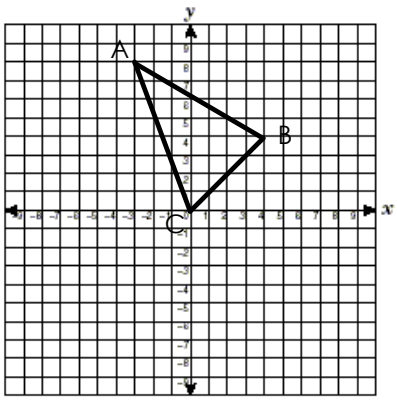
m =

Find the slope of the line that contains (-6, 1) and (3, -5) using the slope formula

Check your work using graph!

m =

Triangle ABC is pictured below. Find the slope of each side of triangle ABC.



Slope of AB = ☐

Slope of AC = ☐

Slope of BC = ☐

Triangle ABC has points A(2,3), B(-4,7) and C (-3,-8). Find the slope of each side of the triangle.

Slope of AB = ☐ Slope of AC = ☐ Slope of BC = ☐