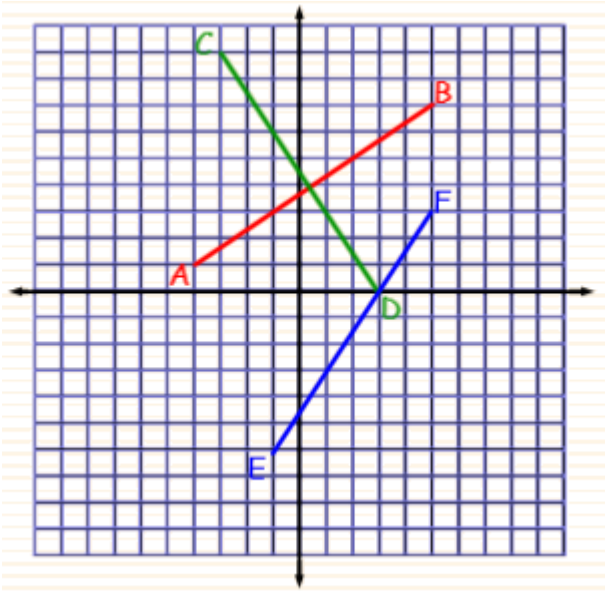
Geometry CC – Mr. Valentino
Unit 9 Lesson 1: Slope!

Name: _____
Date: _____ Per: _____

Aim: How can we find slope?

Do Now: Find the slope of each line segment



AB:

CD:

EF:

How can we find the slope between two points not on the coordinate plane?

A(-4, 1) and B(5, 7)

If two lines are parallel, then they have _____ slopes.

ex:

If two lines are perpendicular then they have _____ slopes.

ex:

1. Which equation represents a line parallel to the graph of $2x - 4y = 16$?

1) $y = \frac{1}{2}x - 5$ 2) $y = -\frac{1}{2}x + 4$ 3) $y = -2x + 6$ 4) $y = 2x + 8$

2. What is the slope of a line perpendicular to the line who equation is $3x + 4y = 12$?

1) $\frac{3}{4}$ 2) $-\frac{3}{4}$ 3) $\frac{4}{3}$ 4) $-\frac{4}{3}$

3. Which equation represents the line that passes through the point (-2, 2) and is parallel to $y = \frac{1}{2}x + 8$?

1. $y = \frac{1}{2}x$ 2. $y = -2x - 3$ 3. $y = \frac{1}{2}x + 3$ 4. $y = -2x + 3$

Partner Practice

1. Find the slope of the line connecting the points (3, -2) and (4, 5).

2. What is the slope of the line that passes through the points (2, -7) and (-1, 4)?

3. Two points whose coordinates are (5, -8) and (3, a) determine a line whose slope is 4.
Find the value of a.

4. Which set of points determine a line with a slope of 1/5?

A. (2, 3), (7, 4)

B. (3, -2), (8, -3)

C. (7, 1), (8, 6)

D. (4, 5), (3, 6)

5. What is the slope of the line that passes through the points (0, 8) and (3, 0)?

6. What value of y would make AB||CD if A(2, 6), B(8,-2), C(-2, 4) D(10, y)?

7. What is the equation of a line passing through (2, −1) and parallel to the line represented by the equation $y = 2x + 1$?

8. What is the equation of the line that is parallel to the line whose equation is $4x + 3y = 7$ and also passes through the point (−5, 2)?

9. What is an equation of the line that contains the point (3, −1) and is perpendicular to the line whose equation is $y = -3x + 2$?