Slope – Day 2   Name _____
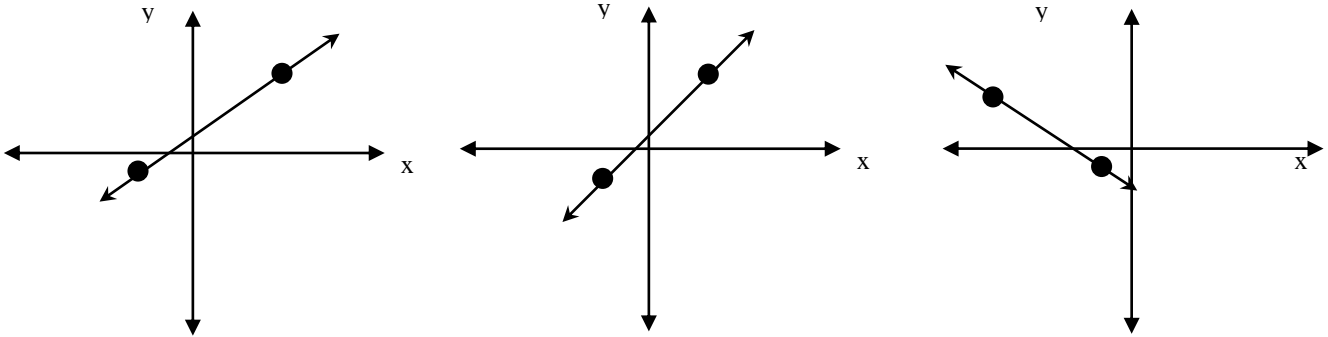Notes   Date _____ Period _____

When connecting two points, there is exactly one straight line that can be drawn through both. Today, you will be given the coordinates of two points. Your task will be to find information about the line through these points – including slope, its y-intercept, and the coordinates of the other points that lie on the line.

1.   (2 , 2) and (-1 , 5)

        a.   Plot the points on the coordinate grid.
                Draw the line that passes through them.

        b.   As the x values increase, what happens to
                the y values?

        c.   Find the slope of the line.

        d.   Mark and label 3 other points on the line and
                record the x and y values for the points in an
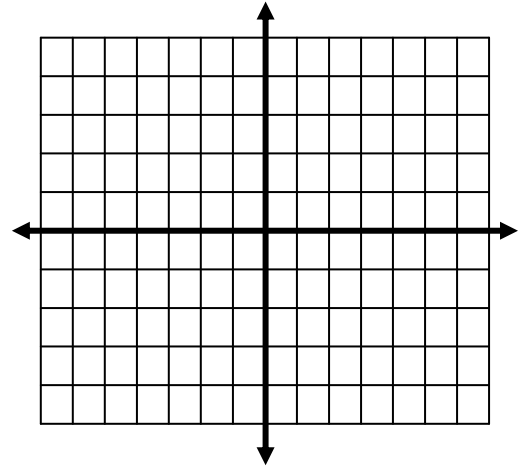   organized table.

x					
y					
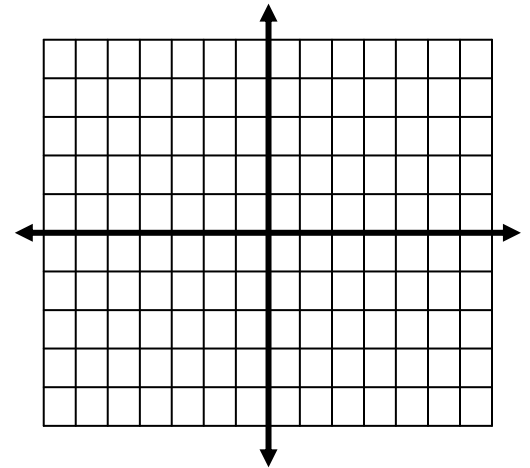
        e.   Does the pattern in your table confirm the slope you calculated in part C?
                How?

        f.   Use the graph or the table to find the y-intercept of the line. (,   )

2.   (2 , 3) and (-1 , -3)

     a.   Plot the points on a coordinate grid.
        Draw the line that passes through them.

     b.   As the x values increase, what happens to
        the y values?

     c.   Find the slope of the line.

     d.   Mark and label 3 other points on the line and
        record the x and y values for the points in an
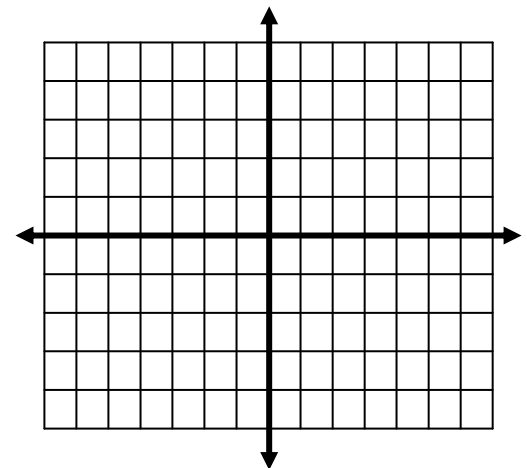   organized table.

x					
y					

     e.   Does the pattern in your table confirm the slope you calculated in part C?
        How?

     f.   Use the graph or the table to find the y-intercept of the line. **(**   **,**   **)**

3.   (3 , 4) and (1 , 4)

     a.   Plot the points on a coordinate grid.
        Draw the line that passes through them.

     b.   As the x values increase, what happens to
        the y values?

     c.   Find the slope of the line.

     d.   Mark and label 3 other points on the line and
        record the x and y values for the points in an organized table.

x					
y					

     e.   Does the pattern in your table confirm the slope you calculated in part C?
        How?

     f.   Use the graph or the table to find the y-intercept of the line. **(**   **,**   **)**

4.   How can you use the slope of a line to determine whether the line slants upward from right to left, slants downward from left to right, is vertical or is horizontal?
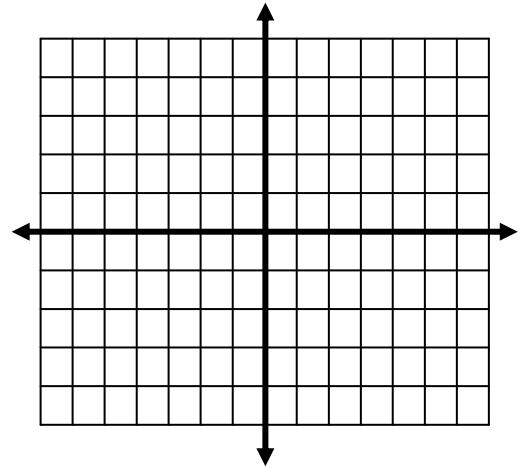
upward:_____   downward:_____

horizontal:_____

5.   (-2 , 3) and (-2 , 0)

       a.   Plot the points on a coordinate grid.
                 Draw the line that passes through them.

       b.   Find the slope of the line.

       c.   Mark and label 3 other points on the line and record the x and y values for the points in an organized table.

x					
y					

**Note: Recall that a vertical line is not a function. Therefore, this line has no slope.