**Quick Review on Slope**

Slope = Rise or m = y

 Run x

Determine the slope of the following line segments

1. A(1,1) and B(4,5)
2. P(-1,3) and Q(4,-2)

A line with a positive slope rises to the right

A line with a negative slope falls to the right

Parallel lines have the same slope where perpendicular lines have negative reciprocal slopes

Determine if the following 2 lines are perpendicular

1. The endpoints of line NO are N(-7,2) and O(-3,-4) and the endpoints of line RS are R(-11,-3) and S(-5,1)

|  |  |  |  |
| --- | --- | --- | --- |
| Line Type | Ordered Pairs | Example | Formula |
| Vertical | (x1, y1), (x1,y2) | (4,0), (4, -3) | d = y |
| Horizontal | (x1, y1), (x2, y1) | (4,0), (0,0) | d = x |
| Oblique | (x1, y1), (x2, y2) | (0,0), (4,-3) | d = x2 + y2  |

Example

The points Q(3,2), R(-3,4) and S(-4,-1) are the vertices of QRS. Calculate the lengths of its sides to 1 decimal place and the slopes.

QR) m =

 d =

RS) m =

 d =

SQ) m =

 d =

Homework: Pg 162 – 165 # 2fh, 5bd, 8