Geometry

3.4 Find and Use Slope of Lines

Slope

Slope = \frac{\text{rise}}{\text{run}}

Slope Types

Positive Slope
Zero Slope
Negative Slope
No Slope (Undefined)

Find the slope of
Line b
Line c

Slopes of Parallel Lines

In a coordinate plane, 2 parallel lines are __________________ if they have the same slope.
And, any 2 parallel lines are ____________________.
Example of || slopes: \( m_1 = 2; m_2 = 2 \)

Slopes of Perpendicular Lines

In a __________________ plane, 2 nonvertical lines are __________________ if the products of their slopes are -1.
Or, Slopes are negative ____________________.
And, __________________ lines are __________________ to vertical lines
Example of perpendicular slopes: \( m_1 = 2; m_2 = -\frac{1}{2} \)
Tell whether the lines are parallel, perpendicular, or neither.

Line 1: through (−2, 8) and (2, −4)
Line 2: through (−5, 1) and (−2, 2)

Tell whether the lines are parallel, perpendicular, or neither.

Line 1: through (−4, −2) and (1, 7)
Line 2: through (−1, −4) and (3, 5)

Line q passes through the points (0, 0) and (−4, 5).
Line t passes through the points (0, 0) and (−10, 7).
Which line is steeper, q or t?

Assignment: 175 #4-30 even, 34, 36, 40, 44, 46, 48 = 20 total
Extra Credit: 178 #2, 4 = +2