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

8th Grade Pre-Algebra Worksheet 9.3   Name _____

Find the slope of the line passing through the given points. SHOW YOUR WORK.

1. $x_1\ y_1\ x_2\ y_2$
    $(2, 4), (5, 2)$

$$m = \frac{2-4}{5-2} = \boxed{\frac{-2}{3}}$$

2. $x_1\ y_1\ x_2\ y_2$
    $(2, -5), (2, 4)$

$$m = \frac{4++5}{2-2} = \frac{9}{0}$$

$$\boxed{NO\ SLOPE}$$
or undefined

3. $x_1\ y_1\ x_2\ y_2$
    $(4, 1), (6, 7)$

$$m = \frac{7-1}{6-4} = \frac{6}{2} = \boxed{3}$$

4. $x_1\ y_1\ x_2\ y_2$
    $(8, 3), (-4, 3)$

$$m = \frac{3-3}{-4-8} = \frac{0}{-12} = \boxed{0}$$

5. $x_1\ y_1\ x_2\ y_2$
    $(6, -8), (3, 4)$

$$m = \frac{4++8}{3-6} = \frac{12}{-3}$$

$$\boxed{m = -4}$$

6. $x_1\ y_1\ x_2\ y_2$
    $(-5, 2), (2, -4)$

$$m = \frac{-4-2}{2++5} = \boxed{\frac{-6}{7}}$$

7. $x_1\ y_1\ x_2\ y_2$
    $(3, 7), (-9, -5)$

$$m = \frac{-5-7}{-9-3} = \frac{-12}{-12} = \boxed{1}$$

8. $x_1\ y_1\ x_2\ y_2$
    $(-3, -2), (-1, -7)$

$$m = \frac{-7++2}{-1++3} = \boxed{\frac{-5}{2}}$$

9. $x_1\ y_1\ x_2\ y_2$
    $(-2, 3), (4, -1)$

$$m = \frac{-1-3}{4++2} = \frac{-4 \div 2}{6 \div 2} = \boxed{\frac{-2}{3}}$$