

Homework: Writing Equations of Parallel & Perpendicular Lines Unit 5 Day 4

Given the following points, calculate the slopes below. Then tell if each pair of lines are parallel, perpendicular or neither.

S(-3, -2) T(-1, -1) U(-2, 2) V(2, 0) W(3, 3) X(1, -1) Y(-1, 4) Z(-4, -2)

$$\text{Slope of } \overline{ZY} = \frac{-2-4}{-4-(-1)} = \frac{-6}{-3} = 2$$

$$\text{Slope of } \overline{XW} = \frac{-1-3}{1-3} = \frac{-4}{-2} = 2$$

$$\text{Slope of } \overline{TY} =$$

$$\text{Slope of } \overline{UV} =$$

$$\text{Slope of } \overline{ST} =$$

Parallel, Perpendicular, or Neither?

1. \overline{ZY} and \overline{XW} 2 and 2 PARALLEL

2. \overline{TY} and \overline{XW} Neither

3. \overline{ZY} and \overline{UV} _____

4. \overline{UV} and \overline{XW} _____

5. \overline{ZY} and \overline{ST} _____

Identify the slope of each line. Compare the slopes, and tell whether the lines for each pair of equations are parallel, perpendicular, or neither.

6. $y = 3x - 8$ $m =$ _____
 $y = 3x + 6$ $m =$ _____

9. $y = \frac{1}{3}x - 8$ $m =$ _____
 $y = -3x - 7$ $m =$ _____

7. $y = -3x - 2$ $m =$ _____
 $y = 3x - 2$ $m =$ _____

10. $y = x$ $m =$ _____
 $y = -x + 4$ $m =$ _____

8. $y = 3x - 8$ $m =$ _____
 $y = \frac{1}{3}x + 5$ $m =$ _____