

Day 4 ~ Finding Slope Formula Answers

1) $(2, -7)$ and $(-1, 6)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{6 - (-7)}{-1 - 2} = \frac{6 + 7}{-3} = \boxed{\frac{-13}{3}}$$

2) $(-3, 3)$ and $(7, 6)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{6 - 3}{7 - (-3)} = \frac{3}{7 + 3} = \boxed{\frac{3}{10}}$$

3) $(-1, -9)$ and $(5, -6)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-6 - (-9)}{5 - (-1)} = \frac{-6 + 9}{5 + 1} = \frac{3}{6} = \boxed{\frac{1}{2}}$$

4) $(-4, 9)$ and $(-5, 8)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{8 - 9}{-5 - (-4)} = \frac{-1}{-5 + 4} = \frac{-1}{-1} = \boxed{1}$$

5) $(8, -3)$ and $(-7, -1)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-1 - (-3)}{-7 - 8} = \frac{-1 + 3}{-15} = \boxed{\frac{2}{-15}}$$

6) $(-5, 3)$ and $(2, 6)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{6 - 3}{2 - (-5)} = \frac{3}{2 + 5} = \boxed{\frac{3}{7}}$$

7) $(8, 5)$ and $(-9, 5)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5 - 5}{-9 - 8} = \frac{0}{-17} = \boxed{0}$$

8) $(-7, 2)$ and $(5, 1)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{1 - 2}{5 - (-7)} = \frac{-1}{5 + 7} = \boxed{\frac{-1}{12}}$$

9) $(-4, 3)$ and $(-4, -7)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-7 - 3}{-4 - (-4)} = \frac{-10}{-4 + 4} = \frac{-10}{0} = \boxed{\text{undefined}}$$

10) $(-6, 1)$ and $(3, 5)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{5 - 1}{3 - (-6)} = \frac{4}{3 + 6} = \boxed{\frac{4}{9}}$$

11) $(1, -9)$ and $(1, -6)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-6 - (-9)}{1 - 1} = \frac{-6 + 9}{0} = \frac{3}{0} = \boxed{\text{undefined}}$$

12) $(-8, -3)$ and $(-4, 2)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - (-3)}{-4 - (-8)} = \frac{2 + 3}{-4 + 8} = \boxed{\frac{5}{4}}$$

13) $(2, 3)$ and $(7, -6)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-6 - 3}{7 - 2} = \boxed{\frac{-9}{5}}$$

14) $(1, -8)$ and $(5, 3)$
 x_1, y_1 x_2, y_2

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{3 - (-8)}{5 - 1} = \frac{3 + 8}{4} = \boxed{\frac{11}{4}}$$

15) $(3, -9)$ and $(-4, -9) \rightarrow y$'s are the same $\boxed{m=0}$