

Slope from two points

Find the slope of the line through each pair of points. Write a fraction in lowest terms.

Name _____ Date _____

- | | |
|--|---|
| 1. $(-2, 1)$ and $(0, 7)$ $m =$ _____ | 2. $(-1, 7)$ and $(1, 1)$ $m =$ _____ |
| 3. $(7, -3)$ and $(4, -4)$ $m =$ _____ | 4. $(4, -4)$ and $(7, -5)$ $m =$ _____ |
| 5. $(-3, -9)$ and $(6, -9)$ $m =$ _____ | 6. $(4, -8)$ and $(3, -9)$ $m =$ _____ |
| 7. $(-4, -7)$ and $(2, -9)$ $m =$ _____ | 8. $(-4, 7)$ and $(-4, 5)$ $m =$ _____ |
| 9. $(3, 2)$ and $(2, 4)$ $m =$ _____ | 10. $(2, 6)$ and $(6, 8)$ $m =$ _____ |
| 11. $(8, 5)$ and $(9, 7)$ $m =$ _____ | 12. $(6, -7)$ and $(3, 2)$ $m =$ _____ |
| 13. $(3, -1)$ and $(5, 0)$ $m =$ _____ | 14. $(1, 8)$ and $(9, 2)$ $m =$ _____ |
| 15. $(0, -5)$ and $(-8, -5)$ $m =$ _____ | 16. $(-8, -6)$ and $(-7, -3)$ $m =$ _____ |
| 17. $(7, -4)$ and $(9, -5)$ $m =$ _____ | 18. $(5, -6)$ and $(5, 3)$ $m =$ _____ |
| 19. $(-6, 5)$ and $(-5, 3)$ $m =$ _____ | 20. $(-6, -3)$ and $(-4, 0)$ $m =$ _____ |

Slope from two points: answer key

The slope is the change in y over the change in x.

1. $(-2, 1)$ and $(0, 7)$

$$m = \frac{7-1}{0-(-2)} = \frac{6}{2} = 3$$

3. $(7, -3)$ and $(4, -4)$

$$m = \frac{-4-(-3)}{4-7} = \frac{-1}{-3} = \frac{1}{3}$$

5. $(-3, -9)$ and $(6, -9)$

$$m = \frac{-9-(-9)}{6-(-3)} = \frac{0}{9} = 0$$

7. $(-4, -7)$ and $(2, -9)$

$$m = \frac{-9-(-7)}{2-(-4)} = \frac{-2}{6} = -\frac{1}{3}$$

9. $(3, 2)$ and $(2, 4)$

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

11. $(8, 5)$ and $(9, 7)$

$$m = \frac{7-5}{9-8} = \frac{2}{1} = 2$$

13. $(3, -1)$ and $(5, 0)$

$$m = \frac{0-(-1)}{5-3} = \frac{1}{2}$$

15. $(0, -5)$ and $(-8, -5)$

$$m = \frac{-5-(-5)}{-8-0} = \frac{0}{-8} = 0$$

17. $(7, -4)$ and $(9, -5)$

$$m = \frac{-5-(-4)}{9-7} = \frac{-1}{2}$$

19. $(-6, 5)$ and $(-5, 3)$

$$m = \frac{3-5}{-5-(-6)} = \frac{-2}{1} = -2$$

2. $(-1, 7)$ and $(1, 1)$

$$m = \frac{1-7}{1-(-1)} = \frac{-6}{2} = -3$$

4. $(4, -4)$ and $(7, -5)$

$$m = \frac{-5-(-4)}{7-4} = \frac{-1}{3}$$

6. $(4, -8)$ and $(3, -9)$

$$m = \frac{-9-(-8)}{3-4} = \frac{-1}{-1} = 1$$

8. $(-4, 7)$ and $(-4, 5)$

$$m = \frac{5-7}{-4-(-4)} = \text{not defined (a vertical line)}$$

10. $(2, 6)$ and $(6, 8)$

$$m = \frac{8-6}{6-2} = \frac{2}{4} = \frac{1}{2}$$

12. $(6, -7)$ and $(3, 2)$

$$m = \frac{2-(-7)}{3-6} = \frac{9}{-3} = -3$$

14. $(1, 8)$ and $(9, 2)$

$$m = \frac{2-8}{9-1} = \frac{-6}{8} = -\frac{3}{4}$$

16. $(-8, -6)$ and $(-7, -3)$

$$m = \frac{-3-(-6)}{-7-(-8)} = \frac{3}{1} = 3$$

18. $(5, -6)$ and $(5, 3)$

$$m = \frac{3-(-6)}{5-5} = \text{not defined (a vertical line)}$$

20. $(-6, -3)$ and $(-4, 0)$

$$m = \frac{0-(-3)}{-4-(-6)} = \frac{3}{2}$$