

Name _____

Date _____

Slopes of Parallel and Perpendicular Lines

Find the slope of the given line. State the slope of any line parallel and perpendicular to the given line.

1. $(3, -16), (-7, -15)$ any parallel line: any perpendicular line:	2. $(1, -13), (-5, -7)$ any parallel line: any perpendicular line:	3. $(-4, 7), (-6, -3)$ any parallel line: any perpendicular line:	4. $(20, 8), (9, 16)$ any parallel line: any perpendicular line:
5. $(17, -13), (17, 8)$ any parallel line: any perpendicular line:	6. $(19, 3), (20, 3)$ any parallel line: any perpendicular line:	7. $(3, 0), (-5, -15)$ any parallel line: any perpendicular line:	8. $(6, -10), (-15, 15)$ any parallel line: any perpendicular line:

Determine if the two lines are parallel, perpendicular, or neither.

9. Line 1: $(1, 2)$ and $(-1, -2)$ Line 2: $(0, 4)$ and $(-2, 0)$	10. Line 1: $(0, -4)$ and $(-1, -7)$ Line 2: $(3, 0)$ and $(-3, 2)$
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11. Write the equation of the line as indicated.

a. Write the equation of the line passing through the points $(-2, 6)$ and $(4, -6)$.

b. Write the equation of the line parallel to the line in part a, that passes through the point $(8, 4)$.

c. Write the equation of the line perpendicular to the line in part b, that passes through the origin.

12. Write the equation of the line as indicated.

a. Write the equation of the line passing through the points $(6, 8)$ and $(4, 4)$.

b. Write the equation of the line parallel to the line in part a, that passes through the point $(5, 0)$.

c. Write the equation of the line perpendicular to the line in part b, that passes through the point $(-5, -1)$.