

Lines: Lesson 7

Parallel and Perpendicular Lines: Worksheet 1

Name: _____



Parallel Lines: same _____, different _____

Perpendicular Lines: Slopes are opposite reciprocals.

Slope perpendicular to: -6 : _____ $\frac{4}{3}$: _____ $\frac{1}{10}$: _____

Are these lines parallel, perpendicular, or neither? (Circle one.)

$y = \frac{7}{9}x + 14$ and $y = \frac{-7}{9}x - 2$ Parallel Perpendicular Neither

$y = \frac{1}{3}x - 1$ and $y = -3x - 4$ Parallel Perpendicular Neither

$y = -5x + 7$ and $y = -5x - \frac{1}{7}$ Parallel Perpendicular Neither

$4x + y = 5$ and $4y = -x - 2$ Parallel Perpendicular Neither

$-2y = 4x + 3$ and $5y = -10x + 1$ Parallel Perpendicular Neither

Find the equation of the line parallel to the given line and through the point:

Given line: $y = \frac{1}{3}x + 17$ Through $(6, 7)$

Given line: $-2y = 8x - 1$ Through $(-1, 3)$

Find the equation of the line perpendicular to the given line and through the point:

Given line: $y = \frac{-5}{6}x + 2$ Through $(-6, 2)$

Given line through $(-3, 0)$ and $(-1, -1)$ Through $(4, -5)$