**Parallel and Perpendicular Lines**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parallel lines have the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ slope.

Perpendicular lines have slopes that are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Write an equation for a line that is parallel to the given line and an equation of a line that is perpendicular to the given line.
	1. $y=3x+2$
	2. $y=\frac{2}{5}x-4$
	3. $2x+3y=-8$
	4. $5x-7y=9$
2. Determine whether the lines are parallel, perpendicular, or neither
	1. $y=\frac{3}{4}x-3$

$$y=\frac{4}{3}x+1$$

* 1. $6x-5y=-11$

$$5x+6y=24$$

* 1. $4x-2y=15$

$$2x-y=7$$

Independent Practice

1. Write an equation for a line that is parallel to the given line and an equation of a line that is perpendicular to the given line.
	1. $y=-5x-1$
	2. $y=\frac{1}{7}x+9$
	3. $7x+10y=-20$
	4. $6x-3y=12$
2. Determine whether the lines are parallel, perpendicular, or neither
	1. $y=\frac{-2}{9}x-3$

$$y=4.5x+12$$

* 1. $9x-3y=-4$

$$12x-4y=7$$

* 1. $8x-4y=1$

$$2x+y=10$$