

Parallel and Perpendicular Lines

Determine if the following equations are parallel, perpendicular, or neither

1. $y = \frac{1}{2}x + 4$
 $y = \frac{1}{2}x - 5$

2. $3x + y = 5$
 $x - 3y = -3$

3. $y = \frac{1}{4}x + 3$
 $2x + 8y = -8$

4. $2x + 4y = 8$
 $3x + 6y = -6$

Write the equation of a line parallel and a line perpendicular to the given equation.

Line	Parallel Lines	Perpendicular Lines
5. $y = \frac{1}{3}x + 1$ $(-3, 4)$		
6. $y = 4x + 2$ $(-8, -3)$		
7. $6x - 3y = 12$ $(-6, 1)$		
8. $10x + 5y = 15$ $(-2, 0)$		