

Unit 6: Worksheet 1  
 Parallel and Perpendicular Lines

Name \_\_\_\_\_

Period \_\_\_\_\_

Finding Slope $m = \frac{y_2 - y_1}{x_2 - x_1}$ or $\frac{\Delta y}{\Delta x}$	Parallel lines // Same slope $m_1 = \frac{2}{3}$ $m_2 = \frac{2}{3}$	Perpendicular lines $\perp$ Opposite reciprocal slope $m_1 = \frac{2}{3}$ $m_2 = -\frac{3}{2}$	Oblique Lines Not // or $\perp$ Intersecting at any angle other than $90^\circ$
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Determine if the lines are parallel, perpendicular, or oblique.		
1. $m_1 = -\frac{2}{7}$ & $m_2 = \frac{7}{2}$ _____	2. $m_1 = \frac{1}{4}$ & $m_2 = -\frac{1}{4}$ _____	3. $m_1 = -2$ & $m_2 = -2$ _____
4. $m_1 = -\frac{1}{7}$ & $m_2 = -7$ _____	5. $m_1 = 4$ & $m_2 = 2$ _____	6. $m_1 = \frac{2}{3}$ & $m_2 = -\frac{3}{2}$ _____
7. $y = \frac{2}{3}x - 4$ $y = \frac{2}{3}x + 1$ _____	8. $y = -5x + 7$ $y = -\frac{1}{5}x - 8$ _____	9. $2x - 3y = 12$ $3x - 2y = 4$ _____
10. $3x - y = 9$ $x + 3y = 36$ _____	11. $-\frac{1}{2}x + y = 8$ $2y = x + 14$ _____	12. $y = 4$ $x = -7$ _____
Determine if the lines through the given points are parallel, perpendicular, or oblique. Find and compare the slopes		
13. $L_1: (0, -1) (5, 9)$ $L_2: (0, 3) (4, 1)$ _____	14. $L_1: (-2, -1) (1, 5)$ $L_2: (1, 3) (5, -5)$ _____	15. $L_1: (4, 8) (-4, 2)$ $L_2: (3, -5) (-1, 3)$ _____