Name _____ Date ___/____/___

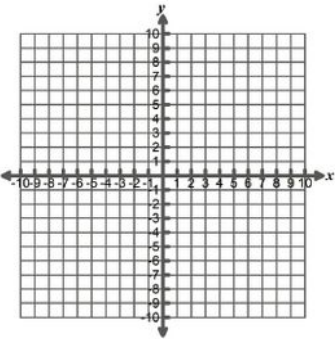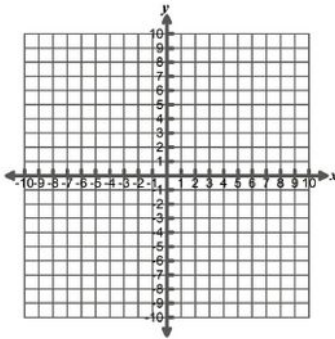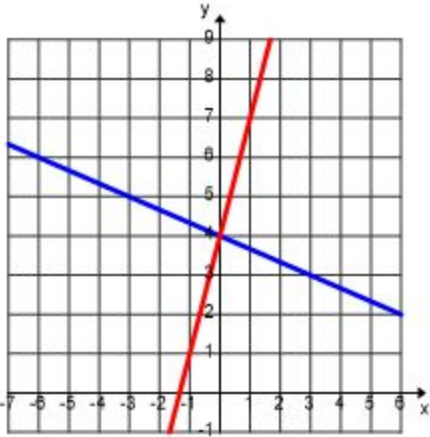Day 2 Practice: Parallel and Perpendicular Lines

Write the equation of each line described. **Your final answer should be in slope-intercept form.**

1.	The line goes through the point (3,2) and is parallel to the line $y = 3x - 1$	2.	The line goes through the point (3,2) and is perpendicular to the line $y = 3x - 1$
	Equation: _____		Equation: _____
3.	The line goes through the point (1, -2) and is parallel to the line y-axis	4.	The line goes through the point (1, -2) and is perpendicular to the y- axis.
	Equation: _____		Equation: _____
5.	The line goes through the point (-3, -3) and is parallel to the line $y = \frac{4}{3}x - 1$	6.	The line goes through the point (-3, -3) and is perpendicular to the line $y = \frac{4}{3}x - 1$
	Equation: _____		Equation: _____
7.	Which equation shows a line that is parallel to $y = -2x - 4$? A. $y = \frac{1}{2}x + 5$ B. $y = -2x + 5$ C. $y = 5x + 1$	8.	Which equation shows a line that is perpendicular to $y = -2x - 4$? A. $y = \frac{1}{2}x + 5$ B. $y = -2x + 5$ C. $y = 5x + 1$

	D. $y = 2x + 5$		D. $y = 2x + 5$
9.	Which equation shows a line that is parallel to $y = -\frac{1}{3}x - 2$? A. $y = \frac{1}{3}x - \frac{4}{3}$ B. $y = -\frac{4}{3}x - \frac{1}{3}$ C. $y = -\frac{1}{3}x - \frac{4}{3}$ D. $y = 3x - \frac{1}{3}$	10.	Which equation shows a line that is perpendicular to $y = -\frac{1}{3}x - 2$? A. $y = \frac{1}{3}x - \frac{4}{3}$ B. $y = -\frac{4}{3}x - \frac{1}{3}$ C. $y = -\frac{1}{3}x - \frac{4}{3}$ D. $y = 3x - \frac{1}{3}$
11.	Which equation shows a line that is parallel to $y = \frac{4}{7}x - 1$, and goes through the point (-4, 5) A. $y + 4 = \frac{4}{7}(x - 4)$ B. $y - 5 = -\frac{7}{4}(x + 4)$ C. $y - 5 = \frac{4}{7}(x + 4)$ D. $y + 4 = -\frac{7}{4}(x - 5)$	12.	Which equation shows a line that is perpendicular to $y = \frac{4}{7}x - 1$, and goes through the point (-4, 5) A. $y + 4 = \frac{4}{7}(x - 4)$ B. $y - 5 = -\frac{7}{4}(x + 4)$ C. $y - 5 = \frac{4}{7}(x + 4)$ D. $y + 4 = -\frac{7}{4}(x - 5)$
13.	Which equation shows a line that is parallel to $y = 5x + 12$, and goes through the point (6,-2) A. $y + 2 = 5(x - 6)$ B. $y - 2 = -5(x - 6)$ C. $y - 6 = 5(x - 6)$ D. $y + 2 = -\frac{1}{5}(x - 6)$	14.	Which equation shows a line that is perpendicular to $y = 5x + 12$, and goes through the point (6,-2) A. $y + 2 = 5(x - 6)$ B. $y - 2 = -5(x - 6)$ C. $y - 6 = 5(x - 6)$ D. $y + 2 = -\frac{1}{5}(x - 6)$

Classify the following equation as parallel, perpendicular, or neither.

15.	$y = 4x + 14$ $\qquad$ $y = -4x + 14$ Parallel $\qquad$ Perpendicular $\qquad$ Neither	16.	$y = \frac{3}{2}x - 1$ $\qquad$ $y = -\frac{2}{3}x + 5$ Parallel $\qquad$ Perpendicular $\qquad$ Neither
17.	$3x - 4y = -11$ $\qquad$ $4x + 3y = -15$	18.	$7x + 4y = 16$ $\qquad$ $7x + y = -30$

	Parallel Perpendicular Neither		Parallel Perpendicular Neither
19.		20.	