Perpendicular Lines

Name: _____

Determine whether the graphs of the given equations are parallel, perpendicular or neither.

1. $y = x + 11$
   $y = -x + 2$

2. $y = \frac{3}{4}x - 1$
   $y = \frac{3}{4}x + 29$

3. $y = -2x + 3$
   $2x + y = 7$

4. $y - 4 = 3(x + 2)$
   $2x + 6y = 10$

5. $y = -7$
   $x = 2$

6. $y = 4x - 2$
   $-x + 4y = 0$

Write an equation in slope-intercept form of the line that passes through given point and is PERPENDICULAR to the graph of the given equation. SHOW YOUR WORK!!!

7. $(0, 0)$ & $y = -3x + 2$

8. $(-2, 3)$ & $y = \frac{1}{2}x - 1$

9. $(1, -2)$ & $y = 5x + 4$

10. $(-3, 2)$ & $x - 2y = 7$

11. $(5, 0)$ & $y + 1 = 2(x - 3)$

12. $(1, -6)$ & $x = 4$