Parallel and Perpendicular Lines Worksheet

Determine whether the pairs of slopes listed are parallel, perpendicular or neither.

1. m = 2, m = -1/2_____
2. m = 3, m = -3 _____
3. m = -4, m =-1/4 _____
4. m = 10, m = -.1 _____
5. m = 2, m = 3 _____
6. m = 4/5, m = 8/10_____

Determine whether the pair of lines listed is parallel, perpendicular or neither. Show your work!

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

8. $y = 2x - 4$
   $y = -2x + 5$

9. $3x + y = 5$
   $y = -\frac{1}{3}x + 2$

10. $2x + 3x - 6 = 0$
    $y = -\frac{2}{3}x + 3$

Given the lines below, create a line that is parallel, one that is perpendicular and one that is neither.

Line	Parallel	Perpendicular	Neither
11. y = 3x + 4			
12. 2x – y = 8			
13. 3x + 4y + 12 = 0			
14. y = 3			

Write the slope-intercept form of the equation of the line described.

15) through: $(4, -1)$, parallel to $y = -\frac{3}{4}x$

16) through: $(4, 5)$, parallel to $y = \frac{1}{4}x - 4$

17) through: $(-2, -5)$, parallel to $y = x + 3$

18) through: $(4, -4)$, parallel to $y = 3$

19) through: $(-3, -3)$, perp. to $y = -\frac{3}{8}x - 2$

20) through: $(0, -4)$, perp. to $y = -\frac{3}{2}x + 1$

21) through: $(1, -3)$, perp. to $y = -x$

22) through: $(2, 4)$, perp. to $y = -x + 5$

