Algebra 1 Name_____

Parallel and Perpendicular Lines

Find the slope of a line parallel to each given line.

1) $x = 5$

2) $y = -\frac{3}{2}x + 2$

3) $y = -2x + 3$

4) $y = -3x - 4$

5) $y = \frac{8}{3}x + 4$

6) $y = -\frac{9}{4}x - 4$

Find the slope of a line perpendicular to each given line.

7) $x = -3$

8) $y = -2x + 3$

9) $y = 6x + 1$

10) $y = -x + 1$

11) $y = \frac{1}{5}x$

12) $y = -\frac{3}{4}x + 2$

Find the slope of a line parallel to each given line.

13) $7x - 2y = 4$

14) $3x - 5y = 0$

15) $3x - 2y = -2$

16) $y = -2$

17) $x - y = -2$

18) $x + y = 4$

Find the slope of a line perpendicular to each given line.

19) $5x + y = -4$

20) $x = -1$

21) $7x - 4y = 12$

22) $x + 2y = 2$

23) $3x + 4y = -4$

24) $x + y = -2$

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

25) through: $(-4, -3)$, parallel to $y = -\frac{1}{2}x + 3$

26) through: $(2, -5)$, parallel to $y = \frac{2}{3}x + 1$

27) through: $(3, -1)$, parallel to $y = -2x - 1$

28) through: $(-3, -3)$, parallel to $y = x - 2$

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

30) through: $(-1, -1)$, parallel to $y = 2x - 3$

31) through: $(-1, 3)$, parallel to $y = x + 5$

32) through: $(-2, -4)$, parallel to $y = \frac{7}{2}x - 5$

33) through: $(1, -1)$, parallel to $y = -3$

34) through: $(-4, -2)$, parallel to $y = \frac{7}{4}x + 3$

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

35) through: $(-2, -1)$, perp. to $y = 2x + 4$

36) through: $(4, 3)$, perp. to $y = -4x + 3$

37) through: $(1, -3)$, perp. to $y = \frac{1}{6}x + 5$

38) through: $(-2, -4)$, parallel to $y = \frac{1}{2}x + 1$