Name _____ Class _____ Date _____

Practice 2-3

Mixed Exercises

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

1. $y = -\frac{3}{8}x + 4$ **2.** $y = x + 6$ **3.** $y = -1 + 5x$

4. $y = \frac{1}{3}x - 4$ **5.** $y = 7x - \frac{1}{3}$ **6.** $y = 4x + 5$

7. $x + 3y = 9$ **8.** $-x + 1 = 0$ **9.** $2y - 10x = 13$

10. $y = -4x + 1$ **11.** $x - y = 3$ **12.** $y - x = -1$

13. $x - 2y = 5$ **14.** $y = -3x + 1$ **15.** $y - 2x = -3$

Graph each line.

16. $y = \frac{4}{5}x + 1$ **17.** $y = -x - 2$ **18.** $y = \frac{1}{3}x - 3$

19. $2x + 3y = 1$ **20.** $4y - x = -2$ **21.** $y = 2$

22. $y = \frac{1}{2}x - 3$ **23.** $y = -3x + 1\frac{1}{2}$ **24.** $y = -1$

From the given slopes, determine if the corresponding lines are *parallel*, *perpendicular*, or *neither*.

25. -5 and 5 **26.** $\frac{1}{10}$ and 0.2 **27.** $\frac{3}{4}$ and $-\frac{4}{3}$

28. 0.3 and -0.3 **29.** $-\frac{1}{2}$ and 2 **30.** $\frac{1}{4}$ and 0.25

31. $-\frac{1}{8}$ and 8 **32.** 1.4 and $\frac{7}{5}$ **33.** -1 and 0

34. -5 and $-\frac{1}{5}$ **35.** $2\frac{1}{3}$ and $-\frac{3}{7}$ **36.** $-\frac{3}{4}$ and -0.75

Determine whether each of the following pairs of lines are *parallel*, *perpendicular*, or *neither*.

37. $y = 2x + 2$
$y = 4x - 2$

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

39. $y = \frac{3}{4}x - 1$
$y = 0.75x + 1$

40. $y = 3x + 1$
$y = -\frac{1}{3}x + 6$

41. $2x + 6y = 1$
$4x + 12y = 3$

42. $y = 2.5$
$y = 2.5x$

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

44. $x - y = 4$
$y - x = 4$

45. $y = 4$
$x = 3$