Parallel and perpendicular lines

Date_____ Period____

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

1) $y = 2x - 1$

2) $x = -1$

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

4) $y = -8x + 5$

5) $y = -4$

6) $y = -\frac{1}{3}x + 2$

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

7) $y = -\frac{9}{2}x - 5$

8) $y = -3$

9) $y = 8x + 4$

10) $x = 4$

11) $y = -2x + 1$

12) $y = \frac{1}{3}x - 4$

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

13) through: $(-3, 5)$, parallel to $y = -\frac{8}{3}x + 3$

A) $y = -3x - \frac{8}{3}$ B) $y = -\frac{8}{3}x - 3$

C) $y = \frac{8}{3}x - 3$ D) $y = -\frac{4}{3}x - \frac{8}{3}$

14) through: $(2, 2)$, parallel to $y = 4x - 5$

A) $y = -6x + 3$ B) $y = 3x - 6$

C) $y = -3x - 6$ D) $y = 4x - 6$

15) through: $(-5, 0)$, parallel to $y = -\frac{1}{5}x + 3$

A) $y = \frac{1}{5}x - 1$ B) $y = -x - \frac{1}{5}$

C) $y = -\frac{1}{5}x - 1$ D) $y = \frac{2}{5}x - 1$

16) through: $(-1, -2)$, parallel to $y = x - 4$

A) $y = x - 1$ B) $y = -3x - 1$

C) $y = -x + 5$ D) $y = 5x - 1$

17) through: $(4, 1)$, parallel to $x = 0$

A) $x = 1$ B) $y = -\frac{1}{4}$

C) $x = 4$ D) $y = 4$

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

A) $y = -3x + 1$ B) $y = x - 3$

C) $y = 3x + 1$ D) $y = -4x - 3$

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

A) $y = x - 1$ B) $y = 2x + 1$

C) $y = -x + 1$ D) $y = x + 1$

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

A) $y = -2x + 3$ B) $y = 4x + 3$

C) $y = 2x + 3$ D) $y = 3x + 2$

21) through: $(-3, -3)$, perp. to $y = -4x - 2$

A) $y = \frac{1}{4}x - \frac{9}{4}$ B) $y = -\frac{3}{4}x - \frac{9}{4}$

C) $y = \frac{1}{2}x - \frac{9}{4}$ D) $y = -\frac{1}{4}x - \frac{9}{4}$

22) through: $(4, -4)$, perp. to $y = \frac{4}{5}x + 3$

A) $y = -\frac{1}{2}x + 1$ B) $y = \frac{1}{2}x + 1$

C) $y = -\frac{5}{4}x + 1$ D) $y = \frac{5}{4}x + 1$

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

A) $x = -1$ B) $y = -4x$

C) $y = -4$ D) $x = 1$

24) through: $(2, -3)$, perp. to $y = x + 4$

A) $y = 4x + 4$ B) $y = 4x - 1$

C) $y = -x - 1$ D) $y = -x + 4$