Geometry Name_____

cw/hw Equations of parallel and perpendicular lines

Find the slope of each line.

1) $y = -\frac{10}{3}x + 5$

2) $y = -\frac{8}{5}x - 4$

3) $y = \frac{9}{2}x + 5$

4) $y = \frac{1}{4}x + 1$

5) $y = \frac{1}{2}x + 4$

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

6) $y = \frac{3}{5}x - 5$

7) $y = x - 5$

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

9) $y = -\frac{4}{5}x - 1$

10) $y = x + 4$

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

11) $y = 5x - 1$

12) $y = -4x - 3$

13) $y = -x - 3$

14) $y = 2x + 4$

15) $y = \frac{5}{3}x - 3$

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

16) through: $(4, 4)$, parallel to $y = -8x - 5$

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

18) through: $(4, -1)$, parallel to $y = x + 3$

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

20) through: $(5, 3)$, parallel to $y = \frac{6}{5}x + 3$

21) through: $(5, -4)$, perp. to $y = \frac{5}{7}x + 2$

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

23) through: $(-4, 5)$, perp. to $x = 0$

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

25) through: $(2, 0)$, perp. to $y = -2$

Write the point-slope form of the equation of the line through the given point with the given slope.

26) through: $(-1, -3)$, slope $= \frac{5}{3}$

27) through: $(-4, 2)$, slope = 7

28) through: $(5, 4)$, slope $= \frac{1}{7}$

29) through: $(4, -4)$, slope $= -\frac{3}{2}$

30) through: $(2, 0)$, slope $= \frac{1}{2}$

Geometry Name_____

cw/hw Equations of parallel and perpendicular lines

Find the slope of each line.

1) $y = -\frac{10}{3}x + 5$

$-\frac{10}{3}$

2) $y = -\frac{8}{5}x - 4$

$-\frac{8}{5}$

3) $y = \frac{9}{2}x + 5$

$\frac{9}{2}$

4) $y = \frac{1}{4}x + 1$

$\frac{1}{4}$

5) $y = \frac{1}{2}x + 4$

$\frac{1}{2}$

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

6) $y = \frac{3}{5}x - 5$

$\frac{3}{5}$

7) $y = x - 5$

1

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

$-\frac{2}{3}$

9) $y = -\frac{4}{5}x - 1$

$-\frac{4}{5}$

10) $y = x + 4$

1

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

11) $y = 5x - 1$

$-\frac{1}{5}$

12) $y = -4x - 3$

$\frac{1}{4}$

13) $y = -x - 3$

1

14) $y = 2x + 4$

$-\frac{1}{2}$

15) $y = \frac{5}{3}x - 3$

$-\frac{3}{5}$

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

16) through: $(4, 4)$, parallel to $y = -8x - 5$

$y = -8x + 36$

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

$y = -3x - 2$

18) through: $(4, -1)$, parallel to $y = x + 3$

$y = x - 5$

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

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

20) through: $(5, 3)$, parallel to $y = \frac{6}{5}x + 3$

$y = \frac{6}{5}x - 3$

21) through: $(5, -4)$, perp. to $y = \frac{5}{7}x + 2$

$y = -\frac{7}{5}x + 3$

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

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

23) through: $(-4, 5)$, perp. to $x = 0$

$y = 5$

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

$y = -2x - 5$

25) through: $(2, 0)$, perp. to $y = -2$

$x = 2$

Write the point-slope form of the equation of the line through the given point with the given slope.

26) through: $(-1, -3)$, slope $= \frac{5}{3}$

$y + 3 = \frac{5}{3}(x + 1)$

27) through: $(-4, 2)$, slope $= 7$

$y - 2 = 7(x + 4)$

28) through: $(5, 4)$, slope $= \frac{1}{7}$

$y - 4 = \frac{1}{7}(x - 5)$

29) through: $(4, -4)$, slope $= -\frac{3}{2}$

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

30) through: $(2, 0)$, slope $= \frac{1}{2}$

$y = \frac{1}{2}(x - 2)$