Geometry 1 - Mr. C. - All work on looseleaf. Name_____

Q1P7 - Ref. Ch. 3-5 & 3-6. Slope & Lines

Date_____ Period____

Find the slope of each line.

1) $0 = y + 4$

2) $3 - x + \frac{3}{5}y = 0$

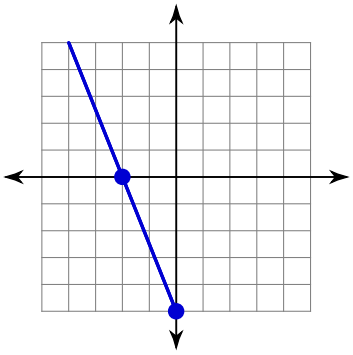
3) $-20 = 2x - 4y$

4) $8 - 2y = -7x$

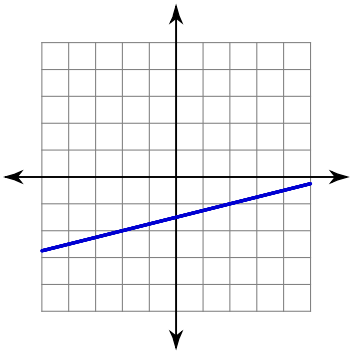
5) $2x - 5y - 15 = 0$

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

7)



8)



Find the slope of the line through each pair of points.

9) $(-2, -13), (4, 7)$

10) $(-14, -1), (0, -14)$

11) $(-1, 11), (9, 3)$

12) $(11, 7), (14, -17)$

13) $(14, -5), (-14, 4)$

14) $(15, 19), (15, -18)$

15) $(3, -9), (19, -20)$

16) $(-14, 16), (-5, -20)$

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

17) $3x = -2y + 10$

18) $-9x = y - 5$

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

19) $-y - 4 = 0$

20) $-5y + 3x = 20$

Write the slope-intercept form of the equation of each line given the slope and y-intercept.

21) Slope $= \frac{1}{2}$, y-intercept $= -1$

22) Slope $= -\frac{3}{5}$, y-intercept $= 1$

23) Slope $= -\frac{1}{2}$, y-intercept $= -3$

24) Slope $= \frac{2}{5}$, y-intercept $= -5$

Write the slope-intercept form of the equation of the line through the given points.

25) through: $(0, 2)$ and $(5, 3)$

26) through: $(2, 5)$ and $(5, -2)$

27) through: $(-5, -4)$ and $(3, 3)$

28) through: $(-5, 5)$ and $(0, 4)$

29) through: $(4, 1)$ and $(-5, 5)$

30) through: $(-5, -5)$ and $(5, 3)$

31) through: $(-4, -4)$ and $(-1, -5)$

32) through: $(-4, 2)$ and $(-5, -1)$

33) through: $(-3, 0)$ and $(-5, -2)$

34) through: $(4, -1)$ and $(1, -4)$

35) through: $(-5, 1)$ and $(1, 0)$

36) through: $(-5, 5)$ and $(5, 1)$

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

37) through: $(5, 4)$, slope = undefined

38) through: $(3, 5)$, slope $= \frac{4}{3}$

39) through: $(5, 5)$, slope $= \frac{7}{5}$

40) through: $(-1, -4)$, slope $= 3$

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

41) through: $(-5, 4)$, slope $= -\frac{4}{5}$

42) through: $(3, 4)$, slope $= \frac{4}{3}$

43) through: $(-1, -4)$, slope $= 6$

44) through: $(-3, 2)$, slope $= 0$

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

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

46) through: $(-5, -2)$, parallel to $y = \frac{6}{5}x + 3$

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

48) through: $(4, 2)$, parallel to $x = 0$

49) through: $(-1, 3)$, perp. to $y = \frac{1}{7}x - 3$

50) through: $(-3, -4)$, perp. to $x = 0$

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

52) through: $(3, 5)$, perp. to $y = -\frac{3}{10}x + 3$

Answers to Q1P7 - Ref. Ch. 3-5 & 3-6. Slope & Lines (ID: 1)

1) 0

3) $\frac{1}{2}$

5) $\frac{2}{5}$

7) $-\frac{5}{2}$

9) $\frac{10}{3}$

11) $-\frac{4}{5}$

13) $-\frac{9}{28}$

15) $-\frac{11}{16}$

17) $-\frac{3}{2}$

19) Undefined

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

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

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

27) $y = \frac{7}{8}x + \frac{3}{8}$

29) $y = -\frac{4}{9}x + \frac{25}{9}$

31) $y = -\frac{1}{3}x - \frac{16}{3}$

33) $y = x + 3$

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

37) $x = 5$

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

41) $y - 4 = -\frac{4}{5}(x + 5)$

43) $y + 4 = 6(x + 1)$

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

47) $y - 2 = 2(x + 1)$

49) $y - 3 = -7(x + 1)$

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