

Slope-intercept and point-slope Forms

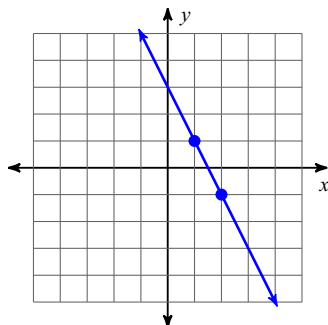
Date _____ Period _____

Find the slope of each line.

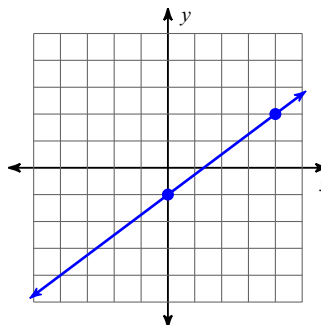
1) $y = 5x - 2$

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

3)



4)

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

5) $(20, 9), (4, -7)$

6) $(-17, -11), (13, 11)$

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

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

8) Slope = $-\frac{1}{5}$, y-intercept = 0

Write the slope-intercept form of the equation of the line through the given points. $y = mx + b$

9) through: $(3, -5)$ and $(1, 4)$

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

11) through: $(2, -5)$ and $(-5, -3)$

12) through: $(-4, -4)$ and $(2, 4)$

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

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

15) through: $(3, -1)$ and $(2, -1)$

16) through: $(-1, -1)$ and $(1, 0)$

17) through: $(2, 1)$ and $(-2, 2)$

18) through: $(3, -2)$ and $(5, 3)$

19) through: $(-3, 4)$ and $(3, 3)$

20) through: $(1, -1)$ and $(-1, -3)$

Write the Point-slope form of the equation of the line through the given points. $y - y_1 = m(x - x_1)$

21) through: $(4, -2)$, slope = 0

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

23) through: $(-5, -5)$, slope = $\frac{2}{5}$

24) through: $(-4, 1)$, slope = $\frac{1}{4}$

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

26) through: $(-1, 5)$, slope = -4

27) through: $(2, -3)$, slope = -2

28) through: $(-5, 1)$, slope = $-\frac{2}{5}$

29) through: $(2, -1)$, slope = $\frac{1}{2}$

30) through: $(-1, -1)$, slope = -3

Write the slope-intercept form of the equation of the line through the given point with the given slope. $y = mx + b$

31) through: $(2, 2)$, slope = $\frac{7}{2}$

32) through: $(-5, -4)$, slope = $\frac{9}{5}$

33) through: $(-1, -2)$, slope = 5

34) through: $(-2, 0)$, slope = 2

35) through: $(-2, -1)$, slope = -4

36) through: $(5, -3)$, slope = $\frac{1}{10}$

Slope-intercept and point-slope Forms

Date _____ Period _____

Find the slope of each line.

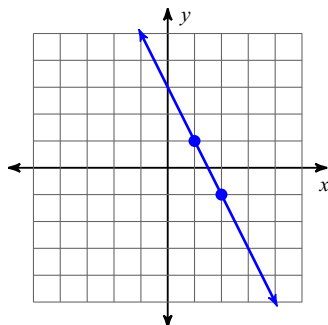
1) $y = 5x - 2$

5

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

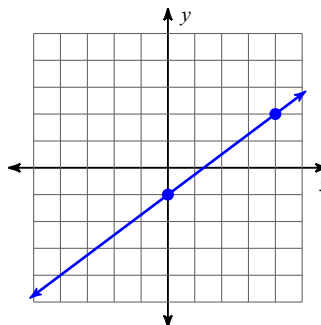
 $\frac{1}{4}$

3)



-2

4)

 $\frac{3}{4}$ **Find the slope of the line through each pair of points.**

5) $(20, 9), (4, -7)$

1

6) $(-17, -11), (13, 11)$

 $\frac{11}{15}$ **Write the slope-intercept form of the equation of each line given the slope and y-intercept.**

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

$y = \frac{1}{2}x + 1$

8) Slope = $-\frac{1}{5}$, y-intercept = 0

$y = -\frac{1}{5}x$

Write the slope-intercept form of the equation of the line through the given points. $y = mx + b$

9) through: $(3, -5)$ and $(1, 4)$

$y = -\frac{9}{2}x + \frac{17}{2}$

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

$y = -2x + 3$

11) through: $(2, -5)$ and $(-5, -3)$

$y = -\frac{2}{7}x - \frac{31}{7}$

12) through: $(-4, -4)$ and $(2, 4)$

$y = \frac{4}{3}x + \frac{4}{3}$

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

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

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

$y = x - 5$

15) through: $(3, -1)$ and $(2, -1)$

$y = -1$

16) through: $(-1, -1)$ and $(1, 0)$

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

17) through: (2, 1) and (-2, 2)

$$y = -\frac{1}{4}x + \frac{3}{2}$$

19) through: (-3, 4) and (3, 3)

$$y = -\frac{1}{6}x + \frac{7}{2}$$

18) through: (3, -2) and (5, 3)

$$y = \frac{5}{2}x - \frac{19}{2}$$

20) through: (1, -1) and (-1, -3)

$$y = x - 2$$

Write the Point-slope form of the equation of the line through the given points. $y - y_1 = m(x - x_1)$

21) through: (4, -2), slope = 0

$$y + 2 = 0$$

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

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

23) through: (-5, -5), slope = $\frac{2}{5}$

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

24) through: (-4, 1), slope = $\frac{1}{4}$

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

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

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

26) through: (-1, 5), slope = -4

$$y - 5 = -4(x + 1)$$

27) through: (2, -3), slope = -2

$$y + 3 = -2(x - 2)$$

28) through: (-5, 1), slope = $-\frac{2}{5}$

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

29) through: (2, -1), slope = $\frac{1}{2}$

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

30) through: (-1, -1), slope = -3

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

Write the slope-intercept form of the equation of the line through the given point with the given slope. $y = mx + b$

31) through: (2, 2), slope = $\frac{7}{2}$

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

32) through: (-5, -4), slope = $\frac{9}{5}$

$$y = \frac{9}{5}x + 5$$

33) through: (-1, -2), slope = 5

$$y = 5x + 3$$

34) through: (-2, 0), slope = 2

$$y = 2x + 4$$

35) through: (-2, -1), slope = -4

$$y = -4x - 9$$

36) through: (5, -3), slope = $\frac{1}{10}$

$$y = \frac{1}{10}x - \frac{7}{2}$$