

Level 4:

Goals:

I have mastered level 4 when I can:

Write an equation given 1 point and the slope

Write an equation given any two points

Notes:

Big Ideas

Examples/Details

Definition of

Basic Practice:

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

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

2) through: $(3, -4)$, slope = $-\frac{1}{3}$

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

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

Write the standard form of the equation of the line through the given points.

5) through: $(-3, -1)$ and $(4, -2)$

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

7) through: $(5, 4)$ and $(2, 2)$

8) through: $(2, -5)$ and $(-5, 1)$

Worksheet Level 4: Writing Linear Equations

Goals:

I have mastered level 4 when I can:

Write an equation given 1 point and the slope

Write an equation given any two points

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

1) through: $(4, 1)$, slope = $\frac{3}{4}$

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

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

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

5) through: $(-5, 0)$, slope = $-\frac{1}{5}$

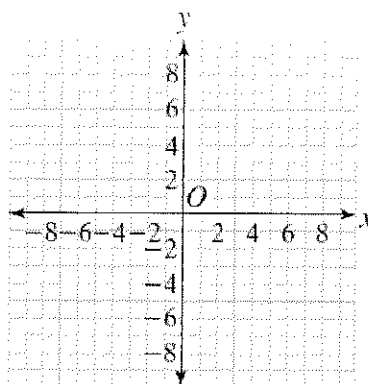
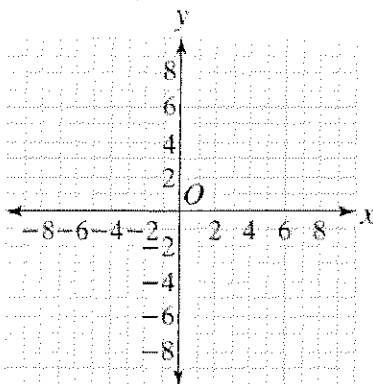
6) through: $(-1, 3)$, slope = -4

Draw a line on the graph using the point given and the slope.

Then write an equation in slope-intercept form.

9. $P(5, 1)$, slope = $-\frac{1}{3}$

10. $K(-2, 4)$, slope = 3



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

7) through: $(-4, 2)$ and $(0, -5)$

8) through: $(1, -1)$ and $(5, 3)$

9) through: $(-5, -2)$ and $(-3, -1)$

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

11)

For parts (a)–(f), write an equation for the line that satisfies the given conditions.

a. The slope is 7 and the y-intercept is -2 .

b. The slope is 0 and the y-intercept is 9.18.

c. The line passes through the points $(3, 1)$ and $(6, 4)$.

d. The line passes through the points $(-24, -11)$ and $(-8, -3)$.

e. The line passes through the points $(-4.5, 2)$ and $(6.3, 5.8)$.

f. The slope is $-\frac{2}{3}$ and the line passes through the point $(5, 0)$.

REVIEW Level 4: Writing Linear Equations

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

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

2) through: $(4, 2)$, slope = $\frac{5}{8}$

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

4) through: $(1, 4)$, slope = 9

5) through: $(4, 1)$, slope = $\frac{3}{2}$

6) through: $(4, -5)$, slope = $-\frac{1}{4}$

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

7) through: $(2, 4)$ and $(3, 1)$

8) through: $(3, -1)$ and $(4, -3)$

9) through: $(2, -2)$ and $(3, 0)$

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