Chapter 5 Review

5.1 Write Linear Equations in Slope-Intercept Form

Use slope and y-intercept to write an equation

Write an equation of a line given two points

Write a linear function

Solve a multi-step problem

5.2 Use Linear Equations in Slope-Intercept Form

Write an equation given the slope and a point

Write an equation given two points

Solve a multi-step problem

5.4 Write Linear Equations in Standard Form

Write an equation from a graph

Write an equation of a line in standard form

Solve multi-step problems

5.5 Write Equations of Parallel and Perpendicular Lines

Write an equation of a parallel line

Determine whether lines are parallel or perpendicular

Write an equation of a perpendicular line

5.6 Fit a Line to Data

Describe the correlation of data

Make a scatter plot

Write an equation to model data
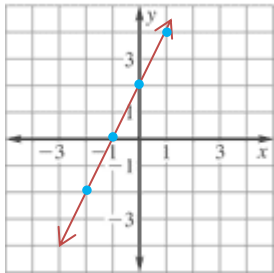
Interpret a model

5.1 Write Linear Equations in Slope-Intercept Form

Write the equation for the line with the given slope and y-intercept.

1) Slope= 5 y-intercept= 2

2) $m = -4$ $b = \frac{1}{4}$

3)

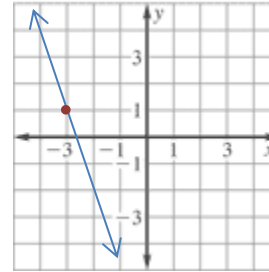4) (-5, 3)   (0, 8)

5) $f(0) = 2, f(2) = 4$

5.2 Use Linear Equations in Slope-Intercept Form

Write an equation given the slope and a point

1) $(5,1)$ $m = 2$

2) $m = -3$

Write an equation given two points

3) $(3,2)$ $(4,9)$

4) $f(2) = 7$ $f(4) = 6$

5) Freddy has money in his bank account. He recently got a job making $15 an hour doing yard work. After 9 hours he has a total of $210.

a) How much money did he have in his account before he got his job?

b) Write an equation to represent the total amount of money as a function of the number of hours worked.

5.4 Write Linear Equations in Standard Form

Write two equations in standard form that are equivalent to the given equation.

1) $x + 2y = 4$

Write the equations in standard form.

2) $y = -5x - 7$ $\qquad\qquad$ 3) $y = 3x + 4$ $\qquad\qquad$ 4) $\frac{1}{3}x = 5y + 2$

Write an equation in standard form of the line that passes through the given point and has the given slope m.

5) $(4, -1)$ $\quad m = 3$

Write an equation in standard form of the line that passes through the given points.

6) $(0,4)\ (4,-4)$

Find the missing coefficient and write the equation in standard form using the given information.

7) $Ax - 4y = -1 \quad (6,1)$

5.5 Write Equations of Parallel and Perpendicular Lines

Write an equation of a line that is parallel to the given line.

1) $y = 5x - 7$

Write the equation of the line that passes through the given point and is parallel to the given line.

2) $(-1, 2)$ $y = 5x + 4$

3) $(-2,5)$ $2y = 4x - 6$

Determine which lines, if any, are parallel or perpendicular.

4)   Line a: $y = 4x - 2$

     Line b: $y = -\frac{1}{4}x + 7$

     Line c: $y = -4x + 1$

5)   Line a: $4x - 3y = 2$

     Line b: $-3x + 4y = -1$

     Line c: $4y - 3x = 20$

Write an equation of a line that is perpendicular to the given line.
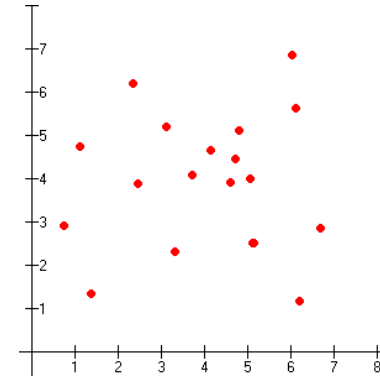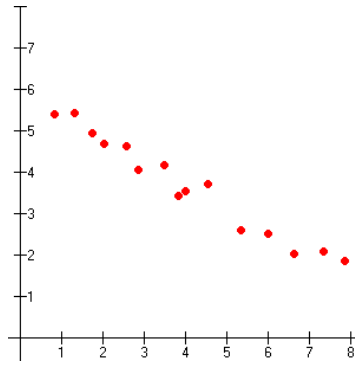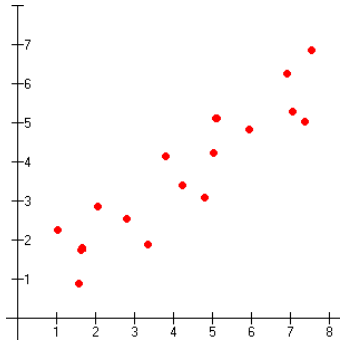
6) $y = -4x + 7$

Write the equation of the line that passes through the given point and is perpendicular to the given line.

7) $(-9,2)$ $y = 3x - 12$ 8) $(8, -1)$ $4y + 2x = 12$

5.6 Fit a Line to Data

Tell whether *x* and *y* show a positive correlation, a negative correlation, or relatively no correlation.

_____   _____   _____

 Make a scatter plot of the data in the table. Draw a line of fit.

x	1	1	3	4	5	6	9
y	10	7	5	-1	-4	-8	-12