

# Practice

Name: \_\_\_\_\_

Period: \_\_\_\_\_

1. For each table below, determine if the information given represents a linear relationship. **Identify the Constant rate of change, if there is one, and the y-intercept (where  $x=0$ ).** Finally, write the equation if it is a line.

Constant Change: \_\_\_\_\_ y-intercept: \_\_\_\_\_

Linear? \_\_\_\_\_ If yes, Equation: \_\_\_\_\_

x	y
1	5
2	7
3	9
4	11
5	13

Constant change? \_\_\_\_\_ y-intercept: \_\_\_\_\_

Linear? \_\_\_\_\_ If yes, Equation: \_\_\_\_\_

x	y
-3	-7
0	5
2	13
6	29
7	33

Constant change? \_\_\_\_\_ y-intercept: \_\_\_\_\_

Linear? \_\_\_\_\_ If yes, Equation: \_\_\_\_\_

x	y
10	25
20	45
30	65
40	85
50	105

Using the table, write the equation and then graph the line on graph paper.

X	Y
0	3
1	5
2	7
3	9
4	11

Remember that the constant increase is multiplied by  $x$ !

Using the data in the table, write the equation and then graph the data. Be sure to fill in the “missing  $x$ ’s” to find the 0, or starting point.

x	y
-3	1
-1	5
1	9
3	13

Using the data in the table, write the equation and then graph the data. Be sure to fill in the “missing  $x$ ’s” to find the 0, or starting point.

x	y
-10	-2
-7	13
-4	28
-3	33

2. Graph the two equations on graph paper on separate coordinate planes. You might want to set up data table first.

$$Y = -3x + 5$$

$$y = 2x - 4$$

3. Jason is saving money for a new computer. He has \$50 from his birthday and plans to earn and save \$5 each week.

a. Fill in the data table below. Be careful to pay attention to the change in values for time.

**Jason's Savings**

Time (Weeks)	0	1	2	3	4	5	10	15	20
Savings (\$)									

b. Write an equation to represent the total amount of savings Jason has over time.

c. Graph the data on graph paper. Be sure to include all of the data in the table.

d. How much money does Jason have in savings at 12 weeks? How do you know? Explain your answer.

4. Susan is keeping track of the amount of money in her lunch account each week. She writes the equation  $A = -6w + 40$ . What do the numbers and variables represent in the equation?

A is \_\_\_\_\_ -6 is \_\_\_\_\_

w is \_\_\_\_\_ +40 is \_\_\_\_\_

NAME \_\_\_\_\_ DATE \_\_\_\_\_ PER \_\_\_\_\_

**PRACTICE – Two-Step and Multi-Step Equations**

Solve the following equations for the value of  $x$ :

Show your work. **Check your answer.**

a.  $3x + 5 = 4x - 10$

b.  $4x + 10 = 6x - 8$

c.  $3x + 10 = 5x$

d.  $3x - 11 = 8x - 21$

e.  $3(x + 8) = 12$