Write linear equations   Name _____
Tables and Word problems

Write the slope-intercept form of the equation of the line for the following tables if possible.

1.

x	4	8	12	16
y	3	0	−3	−6

2.

x	3	6	9	12
y	12	10	8	6

3.

x	5	10	15	20
y	13	28	43	58

4.

x	2	4	6	8
y	10	12	16	24

Write the slope intercept form of the linear equation that would represent the following word problems.

1. Rod is paid an overtime rate of $25 per hour after his basic wage of $600 per week. Write an equation in slope-intercept form for the total pay p if he works h hour of overtime.

2. An airplane 30,000 feet above the ground begins descending at the rate of 2000 feet per minute. Assume the plane continues at the same rate of descent. Write an equation to represent the height of the airplane in feet above the ground $f(x)$ in relationship to time in minutes x.

3. Pete's checking account showed a balance at the beginning of the month of $180. After 3 days the checking account showed a balance of $172.50. Write a linear equations to represent the total in the checking account $f(x)$ according to the day x.

4. A plumber charges a fee of $50 to make a house call. He also charges $25 an hour for labor. Write an equation that you could use to find the amount a plumber charges for a house call based on the number of hours of labor. Let *x* represent the number of hours for labor and *y* represent the total cost.

5. Suppose you receive $100 for a graduation present, and you deposit it in a savings account. Then each week thereafter, you add $5 to the account but no interest is earned. The amount in the account is a function of the number of weeks that have passed.

6. Howard decided to start jogging every day at the track. He completes the following chart for the first month (4 weeks) that he jogs every day. Use the table to write an equation to represent the number of laps *l* Howard runs if *t* is the time in weeks since he began jogging.

Time (weeks)	0	1	2	3
Laps		4	5	6	7

7. A new school has opened in the area. The school did not have yearbook before 2010. In 2010 there were 500 yearbooks sold. In 2014 there were 1000 yearbooks sold. Write the linear function that represents the number of yearbooks sold per year, *f(x)*, where *x* is the number of years since 2010.

8. Marty is taking piano lessons. She is going to practice every afternoon. The 1st week she practiced for 11 minutes each day. The third week she practiced for 25 minutes each day. This is a linear relationship. Write an equation to represent that represents the number of minutes practiced daily, *m*, in relationship to the number of week, *w*.