Name:

Writing Equations Practice– Keystone Review

1.) Mike's family is on a car trip. When they are 126 miles from home, Mike begins recording their distance driven (*d*), in miles, after *h* hours in the table below.

Distance by Hour

Time in Hours (*h*)	Distance in Miles (*d*)
0	126
1	189
2	252
3	315

The pattern continues. Write an equation to find the distance driven (*d*), in miles, after a given number of hours (*h*).

2.) Which statement is true of the equation below?

$$y - 6 = -3(x + 1)$$

a.) The slope is 3 and the y-intercept is 1.
b.) The slope is 3 and the y-intercept is -6
c.) The slope is -3 and the y-intercept is 1
d.) The slope is -3 and the y-intercept is 3

3.) Write the equation of the line that contains the points (0, 3) and (-2, 4).

4.) A line contains the point (-3, -1) and has a slope of $\frac{1}{3}$. What is the equation of the line?

5.) The table below shows the cost of buying sandwiches and getting them delivered.

Number of Sandwiches	Total Cost ($)
2	14
4	26
5	32
8	50

Write an equation to model the cost, *C*, of buying *n* sandwiches.

6.) Write the equation of a line that passes through the point (–4, –4) and has a slope of $\frac{7}{2}$.

7.) Write the equation of a line that passes through the points (2, –3) and (4, –1).

8.) The table shows the number of hours worked in a week and the amount of pay received.

Hours	20	25	30	35
Pay ($)	160	200	240	280

a.)Write an equation to model the amount you will get paid, *P*, for the number of hours worked, *h*.

b.) How much would you make if you work 50 hours?

9.) Quentin is filling a bicycle tire with air. The air pressure started at 20 pounds per square inch (psi) and is increasing by 1.5 psi per second. Which table shows the relationship between time and air pressure?

A.)

Time (Seconds)	Air Pressure (psi)
0	21.5
2	24.5
4	27.5
6	30.5
8	33.5

B.)

Time (Seconds)	Air Pressure (psi)
0	20
2	21.5
4	23
6	24.5
8	26

C.)

Time (Seconds)	Air Pressure (psi)
0	20
2	22
4	24
6	26
8	28

D.)

Time (Seconds)	Air Pressure (psi)
0	20
2	23
4	26
6	29
8	32

10.) Which is an equation of the line that contains the points (0, 2) and (4, 0)?

A.) $x + 2y = 4$

B.) $x - 2y = 4$

C.) $2x + y = 4$

D.) $2x - y = 4$