Name _____ Period _____ Date _____

THE CONSTANT OF PROPORTIONALITY

Go to student.desmos.com, get the class password from your teacher, and do the Desmos activity called Constant of Proportionality.

1. In the table below, what appears to be the constant of proportionality?

x	0	3	6	10	2.5	150
y	0	12	24	40	10	600

2. Given the following ordered pairs, what appears to be the constant of proportionality?

   (0, 0) (2, 5) (10, 25) (1, 2.5)

3. In as much detail as you can, describe the graph of a line with a constant of proportionality of $\frac{1}{2}$.

4. Write the numbers that might come next in the table below, determine if there is a constant of proportionality, and explain your reasoning.

x	1	2	3	4	5	6	
y	1	4	9	16	25	36	

5. Assume that at both stores in the tables below you can buy any number of Healthy Crunch bars you like at these prices: 2 for $2.50 at Barter Jacks and 4 for $4.20 at Quigley's. Fill in the tables to collect data on this product from these two stores.

   For each table, write the constant of proportionality (*k*), and describe whether this number is the same or different than the unit price (price per one bar).

Healthy Crunch: Barter Jack's	
quantity	**price**
Value for *k*:	

Healthy Crunch: Quigley's	
quantity	**price**
Value for *k*:	