## 7<sup>th</sup> Grade Math: *Proportional Tables and Graphs using Stories* Name: \_\_\_\_\_

- **1.** Joe can do 10 multiplication problems in 5 seconds.
  - a) At this rate, how long should it take Joe to do 2 multiplication problems?
  - b) Create a table of values showing how long it should take him to do from 1 to 5 multiplication problems. Then graph the points on the table on the coordinate plane.

Х	у
(number of	(number of
seconds)	problems)
0 seconds	
1 second	
2 seconds	
3 seconds	
4 seconds	
5 seconds	


- c) What is the unit rate?
- 2. Bob's Burger Barn has a special deal of 4 hamburgers for \$6.
  - a) At this rate, how much should it cost to buy 3 hamburgers?
  - b) Fill in the table to show the price for 0 to 5 hamburgers. Then graph the information.

x (number of hamburgers)	y (price)
0	
1	
2	
3	
4	
5	

c) What is the unit rate? \_\_\_\_\_

- **3.** Chocolate cinnamon bears cost \$6.00 for 2 pounds.
  - a) Create a table of values showing how much it would cost to buy up to 3 pounds of this candy. Then graph the points from the table on the coordinate plane.

x (pounds)	y (cost)
0	
1	
2	
3	



- b) What is the unit rate?
- **4.** You want to buy some candy for your birthday party. You go to two different grocery stores and see the following special offers:



Salt Water Taffy \$1.75/lb

a) Complete the table for each offer. Graph each offer in a different color on the coordinate plane.

First Offer						
Pounds	Price					
1						
2						
3						

Second Offer						
Pounds	Price					
1						
2						
3						

b) First offer unit rate:\_\_\_\_\_

Second offer unit rate:\_\_\_\_\_

c) Which is the better deal for Salt Water Taffy?

How do you know?\_\_\_\_\_

- 5. Mario will pay you 360 gold coins for 2 hours of racing Go-Karts. Luigi will pay you 426 gold coins for 3 hours of racing Go-Karts.
  - a) Complete the table for each offer

Mario's Offer			Luigi'	s Offer
Hours	Hours Payment		Hours	Payment
1			1	
2			2	
3			3	
4			4	
5			5	

b) Write each offer as a rate fraction.

Mario's:

Luigi's: \_\_\_\_\_

c) Find the unit rate for each offer.

Mario's:

Luigi's: \_\_\_\_\_

d) Graph each offer in a different color on the same coordinate plane.

e) Whom would you rather race for? \_\_\_\_\_ Why? \_\_\_\_\_

- **6.** The Jones family drives 200 miles in 5 hours. The Grant family drives 360 miles in 6 hours.
  - a) Complete the table for each family. Graph each family's rate in a different color.

Jones 1	Family	Grant	Family
Hours	Miles	Hours	Miles

b) Jones Family unit rate:\_\_\_\_\_

Grant Family unit rate:\_\_\_\_\_

- c) Which family is driving faster? \_\_\_\_\_ How do you know? \_\_\_\_\_
- **7.** The tortoise can walk  $\frac{1}{2}$  a mile in  $\frac{1}{4}$  of an hour. The hare can run  $\frac{1}{2}$  miles in  $\frac{1}{2}$  of an hour.
  - a) Complete the table for each animal. Graph each animal's rate in a different color.

Tortoise		Hare		2 miles			
Hours	Miles	Hours	Miles				
				1 mile			
	11	<u></u>					
b) Tortoise's unit rate:				0 miles			
Hare's Unit Rate:			0 hours	1 hour	2 hours	3 hours	
c) Which animal is faster?				How do you know?	?		

3 miles