Name _____ Period _____

Proportional Relationships

Two quantities are _____ _____ _____ _____ when there is a _____(number) such that each measure in the first quantity (x) _____ by this constant gives the corresponding measure in the second quantity (y).

Identify the measures in the first number with _____ and the measures in the second number with _____. The second quantity, y, is _____ to the first quantity, x, if _____ for some positive number _____.

Example 1

A new self-serve frozen yogurt store opened this summer that sells its yogurt at a price based upon the total weight of the yogurt and its toppings in a dish. Each member of your family weighed their dish and this is what you found:

Weight (ounces)	12.5	10	5	8
Cost ($)	5	4	2	3.20

Cost _____Weight.

1) Does everyone pay the same cost per ounce? _____ How do you know?

_____

2) You have a relative that takes an extra-long time to create a dish of yogurt. When it is placed on the scale, it weighs 15 ounces. If everyone pays the same rate in this store, how much will this dish cost? _____

Conclusion: _____

3) What happens if you do not serve yourself yogurt or toppings?

_____

Does the relationship above still hold true? _____

Lesson Summary

How can you use a table to determine whether the relationship between two quantities is proportional? _____

_____

For each given measure of quantity A and Quantity B, find the value of $\frac{B}{A}$. If the value of $\frac{B}{A}$ is the same for each pair of numbers in the table, then the quantities are proportional to each other.

In each table determine if **y** is proportional to **x**.

1)

x	y
3	12
5	20
2	8
8	32

2)

x	y
3	15
4	17
5	19
6	21

3)

x	y
6	4
9	6
12	8
3	2