Math 8

Name _____
Date _____

Sec 4.6 – Creating a Table of Values Notes

1. **Investigation**

At the Steveston Fair, Mischa sells hot dogs for $3 each and drinks for $2 each. A meal consists of hot dogs and only one drink.

a) How much would a meal of one hot dog and one drink cost?

b) How much would a meal of two hot dogs and one drink cost?

c) How much would a meal of three hot dogs and one drink cost?

d) How much would a meal of nine hot dogs and one drink cost?

e) How many hot dogs can be ordered when a meal costs $35?

Questions

1) Write an algebraic equation that relates the number of hot dogs ordered to the total cost of the meal. Identify the variables.

2) Organize your information in a table of values where the first column represents the number of hot dogs ordered and the second column represents the total cost of the meal.

3) State any patterns that you see in your table.

Summary:

When you know the total cost of a meal, how can you determine the number of hot dogs ordered?

When one value is related to another value, we can write a mathematical relationship to relate the two called a _____.

Example – Write the relation between the number of hot dogs ordered to the total cost of the meal.

The _____ of the relation is h and the _____ of the relation is $3h + 2$.

To organize our input and output, we can write a table of values horizontally or vertically:

h					
C					

h	C

We can say that the input and output is a pair of numbers called an _____.

Some ordered pairs for the hot dog example are:

(1, 5), (2,), (, 11), (, 14), (5,), (h, C)

Often, relations are written with x as the input and y as the output.

Eg. $y = 2x$ $y = x + 6$ $y = -2x + 1$

Practice

1. Make a table of values for the relation $y = 2x$.

x	–3	–2	–1	0	1	2	3	4
y								

2. Make a table of values for the relation $y = -5x - 3$.

3. The equation of a linear relation is $y = -3x + 2$. Find the missing numbers in the following ordered pairs. Show how you find the missing ordered pair.

a) (–1, ____) b) (1, ____) c) (____, –7) d) (____, –13)