Function Machine Worksheet **Name: _____Per. ___**

I. Function Machine Model & Guided Instruction.

How to find the output, when you know the input and function of the machine.

A. If you input ___ into the function machine, then what is the output? _____

B. If you input ___ into the function machine, then what is the output? _____

C. What is the function that this machine does? _____

How to find the function when you know the inputs and outputs.

D. If the input is _____, the output is _____.

E. If the input is _____, the output is _____.

F. If the input is _____, the output is _____.

G. What is the function of the machine?

Real life application.

H. Can you make a machine that applies to your life? Example-Perhaps the price of all the items in your favorite store have increase by 10%. What would be the function of a 10% increase?

II. Determine the function.

A. Open the following website to access the function machine.
http://nlvm.usu.edu/en/NAV/frames_asid_191_g_3_t_1.html

B. Drag as many of the blue numbers as you need to figure out the pattern of each machine.

C. Complete the table on computer. Note: If you type in a number and hit enter, then it will turn blue if correct. *If it isn't correct, then the site will tell you to try again.*

D. Complete 4 of the tables with the correct pattern.

i.

In	Out
5	
6	
7	

ii.

In	Out
5	
6	
7	

iii.

In	Out
5	
6	
7	

iv.

In	Out
5	
6	
7	

E. Write an algebraic rule for each table. (This may take some creativity and fortitude).

i. Out = ii. Out = iii. Out = iv. Out =

F. The algebraic rules that you created in Part E is one of the traditional ways to describe functions. Can you come up with other ways to do it? Share your ideas with your group members and write them down. Which ways of describing a function do you like and why?