

Lesson 7-3 : Functions

SWBAT: To make a function table and to write an equation.

Function:

- A rule that assigns exactly _____
- A function is an _____

Ex: Suppose the machine is designed to multiply by 4:

Input	Output
3	12
-7	-28

Complete the function table for the rule: $\text{output} = \text{input} \cdot (-2)$

Input	Output
-1	
1	
3	

Complete the table for $\text{output} = \text{input} - 8$

Input	Output
-6	
-1	
4	

Identifying independent and dependent variables:

- The _____ is called the independent variable. The _____ is the dependent variable because it depends on what the input is!
- To identify the independent and dependent variable, think about which variable can stand alone and which variable would depend on the information from the other variable.

Ex: 1. The age of an octopus and the weight of the octopus.

- Hint: What makes more sense? As an octopus gets older it weighs more, or as an octopus gets heavier it gets older?

2. The time spent studying and the score you get on a test.

Writing an equation:

- We will use x as the independent variable and y as the dependent variable

Ex: The output = input $\cdot 2$

$$Y = x \cdot 2 \quad \text{or} \quad y = 2x$$

Input x	Output y
2	
3	
4	
5	