

What the bleep is a Function?

This power point is dedicated to Sam

Before We Begin

- Take out a clean sheet of paper and put your name on it. Write “Functions” on the top as well.
- Now, write down #1. “My definition of a function” and give me a paragraph on what you think a function might be. Don’t worry if you are right or wrong. The only way you lose credit for this one is if you write nothing.

Now We Begin

- To truly define a function, we should probably first talk about equations.
 - #2. What is the main characteristic of an equation?
- If you don't know the answer, don't worry. You'll figure it out if you pay close attention to the next few slides...

Two examples

- This is an equation

$$3x - 5x^3 = 3 \int_3^{12} (2x + 7) dx$$

- This is also an equation

$$Y=3$$

Can you tell me what is similar about the two equations now?

An equation is anything that
makes two things equal.

An equation has an equal sign.

PETER

1.21

4c) Expand

~~$x^2 + x - 2$~~

$$(a+b)^n$$

Very young, Peter.

$$= (a + b)^n$$

$$= (a + b)^n$$

$$= (a$$



$$b)^n$$

etc...

There are many types of equations.

There are equations we use in chemistry, physics, engineering, finance and any number of other applications. All of these equations take many forms. We're going to talk about just one form today. The **function**.

What is a function?

Let me ask that question in some different ways.
Answer each question on your paper.

#3. What is the function of a Washing Machine?

#4. What is the function of this school?

#5. What is the function of a coffemaker?

#6. What is the function of this presentation?

Math Function

A math function is much the same.

You put stuff into the machinery on the right side of the equal sign and out comes a product on the left. For each number you put in on the right side, you get a different number out on the left. Here is an example.