How to Write a Function
Function

= Product + Modification + Tool

Product

Modification

Tool

Knife

Cuts

Bread
Product

= Material object that gets modified

Substance Element

“Product”

Bread
Modification (Shorthand Verb)

= Change or control a feature of the product
Modification (Longhand form)

= Change or control a Feature of the product

- Cut
- Change Number of Pieces
- Bread
Modification Exercise

Restate the modifications in longhand

Water

Vaporize
= Change Energy or degree of separation of the molecules

Screw

Turn
= Change Angular Position and depth of penetration

Argon

Heat
= Change Temperature
Tool

= Material Object which delivers the Modification

Product → Modification → “Tool” → Cuts → Bread

Knife Cuts Bread
Types of Functions

- Excessive
- Useful
- Useful but Flawed
- Harmful
Tests for Correctly Written Functions

1. Are all of the Parts Present?

2. Are the tool and product something you could drop on your foot? Physical or virtual Objects

3. Does the modification describe physical change or control of the product? Use longhand (changes . . . Or Controls . . ) if confused.

4. Does the tool directly modify the product?

5. Is the correct function symbol used?

6. Does it describe what is really happening? Be Careful with Confusing Functions

- Tool
  - Modification
  - Product
- Pan
  - Heats
  - Water
- Flame
  - Heats
  - Water
- Dryer
  - Dries
  - Clothes
- Pan
  - Heats
  - Water
- Water
  - Changes Temperature
- Water
  - Heats
- Water
  - Heats
- Dryer
  - Moves
- Moisture
- Clothes

- Harmful
  - Useful
  - Sufficient
  - Excessive
- Use longhand (changes . . . Or Controls . . ) if confused.