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Variables

Variable means something that is not constant. In math, variables can be represented by letters such as x or y. These letters stand for whatever the math problem needs them to be like 10, -500, 0, 3482, etc. ex:  $(x, y) = (-10, 15)$  or  $(4, 1)$ .

In similar fashion, variables serve a similar function in that they can represent anything we want them to be. But unlike math, we have certain steps we have to follow in order to set one up. The steps are:

- Type
- Name
- Value

Below is an example of a variable:

```
int x = 15;
```

First part of setting up a variable is to declare what type of variable it is. Is it an Integer (int)? Or a Float? A boolean (bool)?

```
float z = 15.33334;  
bool y = no;
```

The next step is to name it. In the first example above, this is x. The name of the variable can be anything you want, allowing you to call upon it anywhere in your coding.

```
int age = 15;
```

Or

```
Int mph = 60;
```

The last thing required is to give it a value. "Int age" will not create anything for us to call upon unless it has a value. Going back to our first example in this essay, that would be the number 15. The Integer of x has a value of 15. But numbers aren't the only thing that can be stored. It can hold the value of a string which is a set of characters:

```
Int name = "Steven";
```

There are many other values variables can take, but type, name, and value are what makes variable possible.