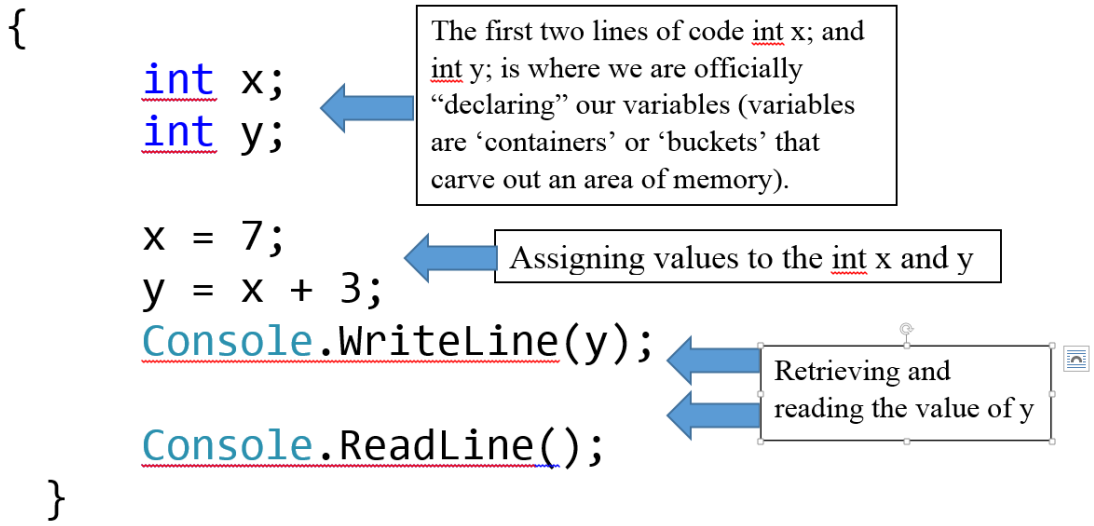
Variables

Variables are “buckets” or “containers” that hold values that you can put data into and pull data out of. They basically carve out an area of memory to be used.

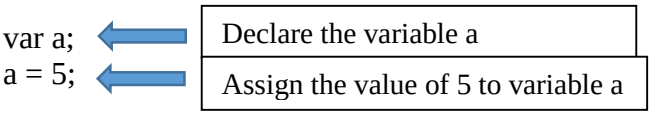
Look at the C# code below. The first two lines of code int x; and int y; is where we are officially “declaring” (or initializing) our variables. To break it down further we are asking the .net runtime to allocate space in the computer’s memory large enough to hold integers (numbers). We are assigning ‘int’ values which is the C# term for integer which is a number that has no fractions or decimal values.

Lines with equals signs like x = 7; and y = x + 3; is where we assign values to the int x and y

Then the lines of code that say Console.WriteLine(y); and Console.ReadLines (); is retrieving and reading the value of y.



In JavaScript you can declare a variable using simply ‘var’ see the example below:



See the example on the next page with a C# string variable.

String variables- Bucket in memory that can hold textual information (alpha-numerical characters). You can name the string variable anything. Camel Case is recommended which is first letter lower case followed by uppercase at the beginning of each word.

Example of String CODE in C#:

```
namespace Variables
{
    class Program
    {
        static void Main(string[] args)
        {

            string myFirstName;
            myFirstName = "Jodi";
            Console.WriteLine(myFirstName);

            Console.ReadLine();


        }
    }
}
```

Side note- if you are doing JavaScript instead of C# you can use single or double quotation marks but because most programming languages use double quotes it's good to get into the habit of using double quotation marks.

Also in the above example you could replace string with var. See the JavaScript example of a string below. You can see some of the similarities and differences between the two languages.

```
            var myFirstName = "Jodi";
            alert(myFirstName);
```

In both examples we declare a string variable. Assign the value Jodi to the variable and display a message that will say: Jodi.