

## Printing Out Variables

### Why do we need to print?

We can assign the variable "X" the value 5 as follows:

```
x = 5
```

And if we do this command, what will be output onto the screen?

Nothing is the answer, there's no instruction to print anything onto the screen, so to see the value of "X" we need to do the following:

```
print(X)
```

And we will get the following on the screen:

```
5
```

So if we want to find out the value of a variable, one way of doing it is to print it to the screen, we just put the name of the variable inside the print brackets, and most importantly we have to remember that we should not put the variable name in inverted commas (""), because if we do, this happens:

```
print("X")
```

And we will get the following on the screen:

```
X
```

So without the inverted commas we get the value of the variable, but with the inverted commas, it just prints out the name.

### Changing the Output

We could also try the following:

```
print(X + 1)
```

And we will get the following on the screen:

```
6
```

We should note that the value of "X" hasn't changed, it's still 5, but you have printed out that value plus one. So if we follow that command with this one:

```
print(X)
```

We will still get the following:

```
5
```

So "X" is still 5, and if we follow that command with this one:

```
print(X + 10)
```

We will get the following:

```
15
```

So the important thing to remember is that we can use the print command to see the value of a variable, but the print command can't change the value of "X", it can just print the value out, or print out some calculation based on it.

Understanding how variables work is very important, they are used in programs to store all kinds of data and it's important to know how to use them, and how to display the values they store.