Variable assignment

When we declare a variable in Java, we are requesting a piece of memory to store information. The name that we give the variable is a label that we can use to refer to that piece of memory.

The first part of the declaration tells the computer what type of variable we would like. From that, the computer can tell how much space to allocate. In Java an **int** type has 32 bits.

For more discussion of primitive types in Java:
http://download.oracle.com/javase/tutorial/java/nutsandbolts/datatypes.html

The second part is a name by which we will be able to call our allocated space. After the statement is executed, the allocation happens behind the scenes and we can now store a value in that space.

```java
int myVariable;
```

Now that we have a space in memory, we can store a value there and/or ask the computer what value is stored there.

To store a value, we use `=` (the assignment operator). We first specify the name of the variable, then the operator, then the value.

```java
myVariable = 65;
```

The number is first converted into binary (the representation that the computer can understand), then written to memory. For example, the number sixty five has a the representation 65 in decimal (base 10) and 1000001 in binary (base 2).

For more discussion of number systems and conversion:
http://en.wikipedia.org/wiki/Numeral_system

```java
System.out.println("The value is: " + myVariable);
```

The result should produce output in the console: **The value is 65**