**Arithmetic**

Say we want to **copy** each character from one array to another. We can do this using an **extra variable** like this:

i=3  
for val in ${n[\*]}  
do  
 arr2[$i]=$val  
 i=$i+1  
done

BASH

This will seemingly work, but there is an issue.

Consider the code below:

sum=2+2  
echo $sum

BASH

One would imagine the output would be 4, but the output is actually 2+2. The variable’s value is being processed as a **string**.

To process it as numbers, we must do this:

sum=`expr 2 + 2`  
echo $sum

BASH

Notice that there are **spaces** around the numbers and the + symbol now.

In the for loop above, this is essentially what is happening. The value of the variable i is actually being updated as a **string**. We can print it out within the loop to check this. However, it is being **converted to a number** just like this when we use the variable as an **index**.