Counting

Let's start with counting. To count all of the elements that match a condition:

```
counter <- 0
for each element in the array
  if the element matches the condition then
    counter <- counter + 1
```

Here's a **traditional implementation** of this that counts for exact matches to a value:

```
int aCount(const int a[], size_t len, int value)
{
    int counter = 0;
    for (size_t i = 0; i < len; ++i)
        if (a[i] == value)
            counter++;
    return counter;
}
```

The **iterator-based** version of this algorithm, named **`count()`** is actually included in the standard library, in the header called **`<algorithm>`**. After including the header, you can call it like this:

```
#include <algorithm>
. . .
int a[] = {...};
. . .
cout << count(begin(a), end(a), value) << endl;
```