Q: How many lawyer jokes are there?
A: Only three. The rest are true stories.

Repetition
- Up to this point, we have dealt with once through programming
- Every statement was executed no more than once
- While this is fine, it really limits the flexibility of what we can do

Repetition
- If I were to give you five thousand index cards with the name, age at graduation, and sex of students who had gone through engineering programs in the last ten years and ask you to give me the number of females under 25 who had graduated.
- You would look at each card to check to see if it was female and then check to see if the age was less than or equal to 25
- If it was, you would increase the count of those students by 1
Repetition

- You would look at each card to check to see if it was female and then check to see if the age was less than or equal to 25
- If it was, you would increase the count of those students by 1

This would be an exceptionally boring task

Now, if we could get a computer to do this, we could be just fine
- Of course, first we would have to get someone to put all the records into a spreadsheet

Hopefully, we could get someone to do this so let's assume that we have the sheet
- I am going to ignore the names since it isn't really important
Repetition

Here is an example of how a spreadsheet might look for this problem.

We can add a column to the spreadsheet to hold the evaluation of the function.

Here is a version that I developed to accomplish this.

We can add a column to the spreadsheet to hold the evaluation of the function.
We could then copy the cell down for 1000 times and then generate the sum of the new column.

This would give us our count.

While this worked in this case, we want to be more flexible in how we are able to do this. One way to achieve this would be to write a macro to repeatedly use the function.
Public Sub CountFemales()
    Dim Count As Integer, Index As Integer
    Dim Age As Integer, Sex As String
    Count = 0
    For Index = 1 To 1000
        Age = ActiveCell.Offset(Index - 1, 0).Value
        Sex = ActiveCell.Offset(Index - 1, 1).Value
        Count = Count + FemaleCount(Age, Sex)
    Next Index
    Range("CI").Value = Count
End Sub