

### Programming Assignment

Write a program to implement the Sieve of Eratosthenes. The Sieve of Eratosthenes finds prime numbers between 2 and a number entered by the user. Use an array of type boolean for determining the prime numbers. (Hint: Set all elements of the array to true initially.) Once the prime numbers are computed, display them in a textbox or listbox on a separate form. Use code similar to the following to accomplish this task:

```
If j <= 9 And i <= number Then
    txtDisplay.Text &= i & vbTab
    j = j + 1
Else
    txtDisplay.Text &= i & vbCrLf
    j = 1
End If
```

Be sure to put safeguards into your code to protect against invalid entries. For instance, you do not want the number to be larger than the largest possible number for the data type of the variable. Use a msgbox to inform the user of invalid entries.

Due date for the assignment is Wednesday, November 2, 2005.