

```

import java.util.Scanner;
import java.text.DecimalFormat;

public class SieveOfEratosthenes {

    public static void main(String args[]) {
        System.out.println("Sieve of Eratosthenes");
        Scanner input = new Scanner(System.in);
        System.out.println(" ");
        System.out.print("Enter the primes upper bound  ===>>
");
        final int MAX = input.nextInt();
        boolean primes[] = new boolean[MAX];
        String decimalString = "";
        for (int count = 0; count <
Integer.toString(MAX).length(); count++)
            decimalString += "0";
        computePrimes(primes);
        displayPrimes(primes, decimalString);
        input.close();
    }

    public static void computePrimes(boolean primeArray[]) {
        for (int i = 2; i < primeArray.length; i++) {
            primeArray[i] = true;
        }
        for (int i = 2; i <=
Math.ceil(Math.sqrt(primeArray.length)); i++) {
            if (primeArray[i] == true) {
                for (int n = 2 * i; n < primeArray.length; n
= n + i) {
                    primeArray[n] = false;
                }
            }
        }
    }

    public static void displayPrimes(boolean primeArray[], String
decimalString) {
        String decimalFormat = decimalString;
        DecimalFormat format = new
DecimalFormat(decimalFormat);
        int lineCounter = 1;
        for (int i = 2; i < primeArray.length; i++) {
            if (primeArray[i] == true) {
                System.out.print(format.format(i) +
" ");
                lineCounter++;
            }
            if (lineCounter % 17 == 0) {

```

```
System.out.println();  
lineCounter=1;
```

```
}
```

```
}
```

```
}
```

```
}
```