```java
import java.util.Scanner;

import java.text.DecimalFormat;


public class Sieve {

public static void main(String[] args) {

System.out.println("\nSieve of Eratosthenes\n");

Scanner input = new Scanner(System.in);

System.out.print("Enter the primes upper bound ===>> ");

final int MAX = input.nextInt();

input.close();

boolean[] primes = computePrimes(MAX);

displayPrimes(primes);

}


public static boolean[] computePrimes(int upperBound) {

// This method will compute the prime numbers

boolean[] primeArray = new boolean[upperBound + 1];


for (int i = 2; i < primeArray.length; i++)

primeArray[i] = true;

for (int i = 2; i < Math.ceil(Math.sqrt(upperBound+1)); i++) {

if(primeArray[i]) {

for (int j = 2 * i; j < upperBound + 1; j+=i) {

primeArray[j] = false;

}

}
```

```java
    }


    return primeArray;


}


public static void displayPrimes(boolean[] primeArray) {
// This method will display the prime numbers
DecimalFormat dec = new DecimalFormat("0000");
String spaces = "";
int count = 0;
int longest = String.valueOf(primeArray.length).length();
for (int j = 0; j < longest; j++) {
spaces+="0";

for (int i = 0; i< primeArray.length; i++) {
if (primeArray[i]) {
System.out.print(dec.format(i) + " ");
count++;
if (count % 16 == 0) {
System.out.println();
}
}
}
```

```
}

}

}
```