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

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();
		boolean primes[] = new boolean[MAX];
		computePrimes(primes);
		System.out.println("");
		System.out.println("PRIMES BETWEEN 1 AND " + MAX);
		System.out.println("");
		displayPrimes(primes);
	}

	public static void computePrimes(boolean primeArray[]) {
		int n = primeArray.length;
		for (int i = 2; i <= n; i++) {
			if (primeArray[i - 1] == false) {
				for (int k = i; k <= n; k += i) {
					if (k > i) {
						primeArray[k - 1] = true;
					}
				}
			}
		}
	}
	// This method will compute the prime numbers

	public static void displayPrimes(boolean primeArray[])
 { DecimalFormat df = new DecimalFormat("0000");
	int counter = 0;
	  for (int i = 2; i <= primeArray.length ;i++) {
		if (primeArray[i-1] == false) {
			if (counter % 16 == 15) {
				System.out.println(df.format(i) + " ");
			}
			else {
			System.out.print(df.format(i) + " ");}
			counter += 1;
		}
```

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        }
    }
}
```