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

public class Sieve {
    public static void main(String[] args) {
        System.out.println("Sieve 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 = 0; i <= upperBound; i++) {
            primeArray[i] = true;
        }

        for (int j = 2; j <= upperBound; j++) {
            if (primeArray[j] == true) {
                for (int i = j * j; i <= upperBound; i += j) {
                    primeArray[i] = false;
                }
            }
        }

        return primeArray;
    }

    public static void displayPrimes(boolean[] primeArray) {
        // This method will display the prime numbers
        String str = "";
        for (int i = 0; i < String.valueOf(primeArray.length - 1).length(); i++) {
            str += "0";
        }
        DecimalFormat df = new DecimalFormat(str);
        int j = 0;
        for (int i = 2; i < primeArray.length; i++) {
            if (primeArray[i] == true) {
                System.out.print(df.format(i) + " ");
                j++;
                if (j % 16 == 0) {
                    System.out.print("\n");
                }
            }
        }
    }
}
```