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

public class Sieve {

    public static void main(String[] args) {

        Scanner input = new Scanner(System.in);
        System.out.print("Enter the primes upper bound ==>> ");
        int upperBound = input.nextInt();
        input.close();

        boolean[] primes = computePrimes(upperBound); // Populate the
array
        displayPrimes(primes); // Print the
prime numbers

    }

    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 - 1; i++) {
            primeArray[i] = true;
        }

        for (int i = 2; i < (int) Math.sqrt(upperBound); i++) {
            if (primeArray[i] == true) {
                for (int x = i*i; x < primeArray.length; x+=i) {
                    primeArray[x] = false;
                }
            }
        }

        return primeArray;
    }

    public static void displayPrimes(boolean[] primeArray) {
        System.out.println("Prime Numbers:");

        int count = 0;

        DecimalFormat df = new
DecimalFormat("0".repeat(String.valueOf(primeArray.length-1).length()));

        for (int i = 2; i < primeArray.length; i++) {
            if (primeArray[i] == true) {
                System.out.print(df.format(i));
                count++;
            }
        }
    }
}

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        if (count % 16 == 0) {
            System.out.println();
        }
        else {
            System.out.print(" ");
        }
    }
    // This method will display the prime numbers
}
}
```