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import java.util.Scanner;
import java.util.Arrays;
import java.text.DecimalFormat;
public class Sieve {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the primes upper bound -----> ");
        int max = sc.nextInt();
        sc.close();

        boolean primes[] = new boolean[max + 1];
        System.out.println();
        computePrimes(primes);
        displayPrimes(primes);
    }
    public static void computePrimes(boolean primeArray[]) {

        for(int i = 2; i < primeArray.length; i++) {
            primeArray[i] = true;
        }

        for (int i = 2; i < Math.pow(primeArray.length, .5); i++) {

            if (primeArray[i]) {
                for (int j = i + 1; j < primeArray.length; j++) {
                    if(j % i == 0) {
                        primeArray[j] = false;
                    }
                }
            }
        }
    }

    public static void displayPrimes(boolean primeArray[]) {
        DecimalFormat format = new DecimalFormat("0000");
        int counter = 0;
        for (int i = 0; i < primeArray.length; i++) {
            if (primeArray[i]) {
                System.out.print(format.format(i) + " ");
                counter ++;
            }
            if (counter == 16) {
                System.out.println();
                counter = 0;
            }
        }
    }
}

```

}
}
}
}
}