**Sieve of Eratosthenes**

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Given a number n, calculate the prime numbers upto n using Sieve of Eratosthenes.

**Input:**The first line of the input contains T denoting the number of testcases. First line of test case is the number to which we have to compute prime numbers.  
**Output:**All the prime numbers upto or equal to n are displayed.  
**Constraints:**  
1 <=T<= 100  
1 <=N<= 10000  
**Example:**

Input:  
2  
10  
35

Output:  
2 3 5 7  
2 3 5 7 11 13 17 19 23 29 31

\*\*For More Examples Use Expected Output\*\*

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\*/

package javaapplication241;

import java.io.\*;

import java.util.\*;

/\*\*

\*

\* @author Administrador

\*/

public class JavaApplication241 {

/\*\*

\* @param args the command line arguments

\*/

static void sieveOfEratosthenes(int n)

{

// Create a boolean array "prime[0..n]" and initialize

// all entries it as true. A value in prime[i] will

// finally be false if i is Not a prime, else true.

boolean prime[] = new boolean[n+1];

for(int i=0;i<n;i++)

prime[i] = true;

for(int p = 2; p\*p <=n; p++)

{

// If prime[p] is not changed, then it is a prime

if(prime[p] == true)

{

// Update all multiples of p

for(int i = p\*2; i <= n; i += p)

prime[i] = false;

}

}

// Print all prime numbers

for(int i = 2; i <= n; i++)

{

if(prime[i] == true)

System.out.print(i + " ");

}

}

public static void main(String[] args) throws IOException {

// TODO code application logic here

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

int t = Integer.parseInt(br.readLine());

while(t-- > 0) {

int n = Integer.parseInt(br.readLine());

sieveOfEratosthenes(n+1);

System.out.println();

}

}

}

//}