

Eratosthenes Prime numbers

Given an integer 'N', print count all the prime numbers which are less than or equal to 'N'

Input description

First line of input is an integer T (number of testcases) and integer T will be followed by T lines, where each line will contain an integer N

Output description

Output will consists of T lines. Each line will have count of all prime numbers present in input

Constraint

$1 \leq T \leq 10000$

$1 \leq N \leq 1000000$

Example

Input

2

9

11

output

4

5