Project Euler #87: Prime power triples

The smallest number expressible as the sum of a prime square, prime cube, and prime fourth power is 28. In fact, there are exactly four numbers below fifty that can be expressed in such a way:

$28 = 2^2 + 2^3 + 2^4$
$33 = 3^2 + 2^3 + 2^4$
$49 = 5^2 + 2^3 + 2^4$
$47 = 2^2 + 3^3 + 2^4$

Given an integer N , Find out how many numbers *less than or equal* to N are there that can be expressed as a sum of a prime square , prime cube and prime fourth power.

Input Format

First line contains an integer T denoting the number of testcases.
The next T lines contain integer N.

Constraints

$1 \leq T \leq 10^5$
$1 \leq N \leq 10^7$

Output Format

The i^{th} line containing the answer for the i^{th} testcase.

Sample Input

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1
50
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Sample Output

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4
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