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
$1 \le T \le 10^{5}$
$1 \le N \le 10^{7}$

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

Sample Input

```
1
50
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Sample Output

```
4
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