

Wow Square

"Wow Square" This problem is about the perfect square number, given a positive integer n your task is to find two integers x and y that satisfy:

- 1) $x < y \leq n$. Remember that x is always less than y .
- 2) $x * y$ is a perfect square. This means that there's a positive integer z such that $z * z = x * y$.
- 3) $x * y$ is maximum. Find $x * y$ as large as possible without violating previous rules.
- 4*) $y - x$ is maximum. If there still multiple solution x, y that satisfy all previous rules, choose x, y with largest $y - x$.

Input

First line, there's an integer T ($1 \leq T \leq 10,000$) then T cases follow.

Each test case there's an integer n ($4 \leq n \leq 10,000,000$).

Output

For each test case, output x and y with this format: $x * y$. see the examples for more detail.

Example

Input:

6

4

10

15

20

321

1020

Output:

1*4

4*9

3*12

8*18

245*320

864*1014

Score is length of your code.

See also: [Another problem added 'and recommended \(new!\)' by Tjandra Satria Gunawan](#)