

Problem 4: Factoring Triangular Number

Kevin, the minion, is a mathematician who is in love with numbers. One day he drew a sequence of number on the board. He called each number “a triangular number”. The triangular number is generated by adding the positive integer. For examples, the 10th triangular number would be $1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9 + 10 = 55$

The sequence of triangular numbers must be 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, ...

Kevin found that each number in triangle has its own factor, so he listed them as below:

1:1

3: 1,3

6: 1,2,3,6

10: 1,2,5,10

15: 1,3,5,15

21: 1,3,7,21

28: 1,2,4,7,14,28

So, he gives a sequence number K , determine the number of distinctive divisor other than 1 and the number itself. For example, $K=7$, there are four distinctive divisor of 2, 4, 7 and 14.

Your jobs is to find number(s) of these distinctive divisors.

INPUT

The first line of input contains M the number of cases which is not more than 100. Then M lines follow. Each subsequent line consists of a case with the integer K which is between 1 and 1,000,000 inclusively.

OUTPUT

The output should be in form of:

Case #1

The results for case #1

Case #2

The results for case #2

...

Case #M

The results for case #M

SAMPLE

Input

3
3
5
7

Output

Case #1

2

Case #2

2

Case #3

4