

Prime Factor

Lili is just self-learned about prime numbers. She is interested but doesn't deeply understand about prime numbers. Yesterday, Lili got homework from the teacher, which is to find the factors from a number *N*. Because of his fondness for prime numbers, while doing homework he also looked for factors that were prime numbers. You as a good friend of Lili should not lose to her, prove that you can do the same!

Format Input

The first line contains T, the number of question in Lili's homework.

Each test case consists of one number Ni, the number to be factorized for the i-th question.

Format Output

Output "Case #X: " for each test case, where *X* is question number.

Followed by a distinct set of prime number from the smallest to the biggest. Print one whitespace between two consecutive number.

Note that there should be no trailing zeroes.

Constraints

 $1 \le T \le 100$
 $2 \le N \le 1000$

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Sample Input	Sample Output
3	Case #1: 2
2	Case #2: 2 3
6	Case #3: 11
11	

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