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

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

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