

Anjan's Children

Once Nikhil met Anjan in a picnic.

Nikhil asked Anjan, "How many children do you have and what are their ages?"

Anjan replied, "I have two children, the product of their ages are 10".

As Nikhil is a brilliant programmer, so he is very smart. He replied, "This information is not enough to find out their ages."

Anjan smiled and replied , "My children are not twin and their age difference is also minimum among all possible solutions."

Nikhil gave the answer instantly that they are 2 and 5 years old.

Input

Input starts with an integer T, denoting the number of test cases. Each case contains one integers N which is product of the age of Anjan's children.

Output

For each case, print the age of Anjan's children followed by the case number. Print younger child's age first.

Input Format

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3
10
40
120
```

Constraints

1. $1 \leq T \leq 50$
2. $2 \leq N \leq 10000$

Output Format

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Case #1: 2 5
Case #2: 5 8
Case #3: 10 12
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Problem Setter : Mehrab Imtiaz

Problem Tester : Asaduzzaman Nur Shuvo