1109 - False Ordering

We define **b** is a Divisor of a number **a** if **a** is divisible by **b**. So, the divisors of 12 are 1, 2, 3, 4, 6, 12. So, 12 has 6 divisors.

Now you have to order all the integers from 1 to 1000. x will come before y if

- 1) number of divisors of \mathbf{x} is less than number of divisors of \mathbf{y}
- 2) number of divisors of x is equal to number of divisors of y and x > y.

Input

Input starts with an integer T (≤ 1005), denoting the number of test cases.

Each case contains an integer n ($1 \le n \le 1000$).

Output

For each case, print the case number and the nth number after ordering.

Sample Input	Output for Sample Input
5	Case 1: 1
1	Case 2: 997
2	Case 3: 991
3	Case 4: 983
4	Case 5: 840
1000	