Relativity

After a long day at the patent office, Lea decides to dedicate her free time to something more relaxing: physics. Recently, she took the class "**P**hysics: **H**ow **Y**ou **S**urvive **I**n **C**osmos & **S**pace". During lectures, she instantly became curious about how much energy certain objects contain. To this end, she now wants to calculate the energy equivalent of specific everyday objects like lamps, apples, iguanas, swiss cheese, ... Of course, Lea has a well-known formula to calculate all this: $E = mc^2$.

Input

The first line of the input contains an integer t. t test cases follow, each of them separated by a line break.

Each test case consists of an integer m, the mass of the object.

Output

For each test case, output one line containing "Case #i: E" where i is its number, starting at 1, and E is the energy equivalent of the object. Each line of the output should end with a line break. You may assume that the input is given in the same order of magnitude as c. In particular, this means that you may disregard all units and need not to convert the input.

Constraints

- $1 \leq t \leq 1000$
- $1 \leq m \leq 100$
- $c = 299792458$

Sample Input 1	Sample Output 1
5 1 5 10 50 100	Case #1: 89875517873681764 Case #2: 449377589368408820 Case #3: 898755178736817640 Case #4: 4493775893684088200 Case #5: 8987551787368176400