

Hermione Granger is very concerned about the magical disabilities of squibs (A Squib is someone who was born into a wizard family but hasn't got any magic powers). Since the fall of Voldemort, she has been working hard to invent a potion to cure these disabilities. After a lot of research work, she has invented that a certain amount of apple juice needs to be mixed with the burnt leaves of birch tree in a lot of cherry juice. Later, she invents that for a  $k$ -year old person, if  $a$  amount of apple juice,  $b$  amount of leaves of birch tree and  $c$  amount of cherry juice are mixed, it must satisfy the following equation:

$$(a + b^2) \bmod k = c^3 \bmod k, \text{ where } a \leq b \leq c \text{ and } 1 \leq a, b, c \leq n.$$

She names such a triplet  $(a, b, c)$  as a magic triplet for a  $k$ -year old person. She wants to know how many different magic triplets exist for known values of  $n$  and  $k$ . A triplet is different from another if any of the three values is not same in both triplets.

## Input

First line of the input contains a single positive integer  $T$  ( $1 \leq T \leq 400$ ) denoting the number of test cases. Then in each of the following  $T$  lines, there will be two integers  $n$  and  $k$  ( $1 \leq n, k \leq 10^5$ ).

## Output

For each of the cases, output a single line containing 'Case  $x$ :  $y$ ', where  $x$  is the case number and  $y$  is the number of magic triplets.

## Sample Input

```
1
10 7
```

## Sample Output

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Case 1: 27
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