Given positive integers m and k, let $f(x, y) = x\lceil y\sqrt{k}\rceil - y\lfloor x\sqrt{k}\rfloor$, compute the number of positive integer pairs (a, b) such that $f(a, b) = m$, $f(a - b, b) \neq m$, and $f(a, b - a) \neq m$ hold simultaneously.

Input

A number of of inputs (≤ 1000) described as follows.

Each input is just a single line with m and k ($0 < m, k \leq 10^{18}$).

Output

For each input, output a line with the number of pairs.

Sample Input

```
3 4
3 5
```

Sample Output

```
0
4
```