Given a prime p, and a constant $0 < a < p$. Find all x such that $x^3 \equiv a (\mathrm{mod} p)$.

Input

Each input is on one line (≤ 1000 inputs), with a and p ($p < 1000$).

Output

Output all $x < p$ satisfying the condition above in increasing order. Print a blank line if there are none.

Sample Input

```
2 31
```

Sample Output

```
4 7 20
```