

# Faulty Hash

## Description

As a hash lover, Shik always try to use hash when solving string problems.

Here is a simple hash function implemented in C.

```
int hash(const char *s, int m) {
    int h = 0;
    for (int i = 0; s[i]; i++) h = (h * 27LL + s[i] - 'a' + 1) % m;
    return h;
}
```

Can you challenge him?

## Input

Each test case contains an integer  $m$  in a single line.

- $1 \leq m \leq 10^9$

## Output

For each test case, output two different strings  $a, b$  in a single line, such that `hash(a, m) == hash(b, m)` and all characters of  $a, b$  are lowercase letters. If there are more than one solutions, any one will be accepted.

- $1 \leq |a|, |b| \leq 10000$

## Sample Input

```
514
50216
```

## Sample Output

```
tmt bdu
peter mvcyeohunx
```