# BlockChain

You are a maintainer of the project FartCoin, and have been tasked with ensuring the validity of the blockchain. FartCoin is the first fully centralized blockchain where you are the source of total authority and must manually check the validity of the blockchain. Users will submit their "work" to you, upon which you will approve or reject their work. If approved, the blockchain will be appended to.

This simple blockchain is stored in a single growing file, starting with the string "fartcoin". Each "transaction" is represented by appending new text to the growing file, and it must satisfy the property that the entire blockchain hashes to a prime number after the appending. This is the "proof of work" to demonstrate the "miner" spent computational effort in the newly added "transaction". Fartcoin transactions have no formatting requirements and may simply be random strings of characters. The "hashing algorithm" used by fartcoin is a simple XOR-based hash as follows (using the ASCII values of each character):

```
hash(blockchain):
    hash = 0
    for each char in blockchain:
        hash = hash << 1
        hash = hash ^ char
    return hash
```

## Input

The first line of input contains the value $n < 100$. The next $n$ lines will contain the usernames and the transaction that they want to submit, space separated and one per line. Transactions characters will be valid ASCII.

## Output

For each submission, output the name of the individual, whether their nonce has been accepted or rejected, and the total number of accepted submissions so far (including the current submission).

### Sample Input

```
7
Joe helloworld?
Bob helloworld!
Carl ohno%
Franklin ilovefartcoin5
Daniel sendmemillions)
Edgar create10coins!
Josh ihatefartcoin123
```

### Sample Output

```
Joe rejected 0
Bob accepted 1
Carl rejected 1
Franklin accepted 2
Daniel accepted 3
Edgar rejected 3
Josh rejected 3
```