5. Programming – 'Guessing'

The puzzle is just simply ask you to guess a number, between 0 and 18446744073709551616 and 70 trials. In these trials, the puzzle will give you if your guess is higher or lower than the answer.

Quite familiar right? It's just simple binary search. But remember to use a socket 🐱. Your hand can't be that fast.

```python
import socket

s = socket.socket(socket.AF_INET, socket.SOCK_STREAM)

s.connect(("167.172.16.55",1010))\

data = s.recv(10240).decode();
print(data)

l = 0
r = 18446744073709551616

while True:
    m = (l + r) // 2;
    s.send((str(m)+'\n').encode())
    print(m)
    data = s.recv(10240).decode();
    print(data)
    data = data.split()[3]
    print(data)
    if (data == "LOWER!"): r = m-1; # too high -> the answer is
strictly less than m
    else: l = m + 1; # too low -> the answer is strictly larger
than m
```

```
Yay! you got the true number! VHC2022{B1n4ry_0v3rd0s3d!}
```