

## 7897 Number Theory Problem

Mr. Panda is one of the top specialists on number theory all over the world.

Now Mr. Panda is investigating the property of the powers of 2. Since 7 is the lucky number of Mr. Panda, he is always interested in the number that is a multiple of 7.

However, we know that there is no power of 2 that is a multiple of 7, but a power of 2 subtracted by one can be a multiple of 7. Mr. Panda wants to know how many positive integers less than  $2^N$  in the form of  $2^k - 1$  ( $k$  is a positive integer) that is divisible by 7.  $N$  is a positive integer given by Mr. Panda.

### Input

The first line of the input gives the number of test cases,  $T$ .  $T$  test cases follow.

Each test case contains only one positive integer  $N$ .

### Output

For each test case, output one line containing 'Case # $x$ :  $y$ ', where  $x$  is the test case number (starting from 1) and  $y$  is the answer.

### Limits:

- $1 \leq T \leq 100$ .
- $1 \leq N \leq 10^5$ .

### Sample Input

```
2
1
4
```

### Sample Output

```
Case #1: 0
Case #2: 1
```