

# Ludic Numbers (medium)

Find the number of [Ludic numbers](#) less than or equal to  $N$ .

## Input

The first line contains  $T$  ( $1 \leq T \leq 1000$ ), the number of test cases.

Each test case contains a single integer  $N$  ( $1 \leq N \leq 10^9$ ).

## Output

For each test case, output the number of Ludic Numbers less than or equal to  $N$ .

## Example

### Input

```
10
1
2
3
4
5
10
100
1000
1000000
1000000000
```

### Output

```
1
2
3
3
4
5
24
142
66164
43956562
```

## Note

- See [LUDIC2](#) for a harder version.
- Other references for the Ludic numbers: [Ludic numbers](#) or [A003309](#).