A - Bytelandian Gold Coins

Input: `coins.in`
Output: `standard output`

In Byteland they have a very strange monetary system.

Each Bytelandian gold coin has an integer number written on it. A coin n can be exchanged in a bank into three coins: $\frac{n}{2}$, $\frac{n}{3}$ and $\frac{n}{4}$; but these numbers are all rounded down (the banks have to make a profit).

You can also sell Bytelandian coins for American dollars. The exchange rate is 1:1. But you can not buy Bytelandian coins.

You have one gold coin. What is the maximum amount of American dollars you can get for it?

For instance, if you have a coin 12, you can change it into 6, 4 and 3, and then change these into $\$6 + \$4 + \$3 = \$13$. If you try changing the coin 2 into 3 smaller coins, you will get 1, 0 and 0, and later you can get no more than \$1 out of them. It is better just to change the 2 coin directly into \$2.

Input

The input will contain several test cases. Each testcase is a single line with a number n, $0 \leq n \leq 1000000000$. It is the number written on your coin.

Output

For each test case output a single line, containing the maximum amount of American dollars you can make.

Sample Input

```
12
2
```

Sample Output

```
13
2
```