

## 1245 – Harmonic Number (II)

I was trying to solve problem '1234 – Harmonic Number', I wrote the following code

```
long long H( int n ) {  
    long long res = 0;  
    for( int i = 1; i <= n; i++ )  
        res = res + n / i;  
    return res;  
}
```

Yes, my error was that I was using the integer divisions only. However, you are given **n**, you have to find **H(n)** as in my code.

### Input

Input starts with an integer **T** ( $\leq 1000$ ), denoting the number of test cases.

Each case starts with a line containing an integer **n** ( $1 \leq n < 2^{31}$ ).

### Output

For each case, print the case number and **H(n)** calculated by the code.

Sample Input	Output for Sample Input
11	Case 1: 1
1	Case 2: 3
2	Case 3: 5
3	Case 4: 8
4	Case 5: 10
5	Case 6: 14
6	Case 7: 16
7	Case 8: 20
8	Case 9: 23
9	Case 10: 27
10	Case 11: 46475828386
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