Weird Ceiling

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

While learning about the ceiling function, a student wrote the following pseudocode:

```
 1: function F(a, b)
 2:     i ← b
 3:     while i ≥ 2 do
 4:         if a mod i = 0 then
 5:             return a/i
 6:         end if
 7:         i ← i − 1
 8:     end while
 9:     return a
10: end function
```

You know that this is incorrect, but you are curious about the characteristics of the function $f(a, b)$ defined by this student. Specifically, you want to calculate the value of $\sum_{i=1}^{n} f(n, i)$.

Input

The first line contains an integer T ($1 \leq T \leq 10^3$), indicating the number of test cases.

For each test case, there is one line containing an integer n ($1 \leq n \leq 10^9$).

Output

For each test case, output one line containing an integer representing the answer.

Example

standard input	standard output
3	21
5	10251
451	7075858
114514	