

Say My Number (prob5)

The Problem

Produce a short, elegant, program that spells out any number between 1 and 1 quintillion (1×10^{18}).

Your program should allow the user to input a number in the range from 1 to 1 quintillion (a positive 64-bit number) – the output will be the string consisting of the number spelled out in English words (e.g. 123456 would output "one hundred twenty three thousand four hundred fifty six"). Hyphens are not allowed (e.g. "fifty six" will be accepted, "fifty-six" will not).

Hint: The beauty of recursion is that this can be done with just a few if statements and switch/case values (about 35 or so total), thanks to the way we read numbers (the number 123,123,123 is spoken the same as a single 123, but with a few "place" words - million, thousand, etc.).

Input

The first line of input will be the number of integers to spell out. The remaining lines will each contain one number n , $1 \leq n \leq 10^{18}$, per line.

Output

The spelled-out English word equivalent of each number, in all-lower-case, separated by line breaks. One space between each word is required.

Sample Input

```
3
123456789123456789
200000370
987654321
```

Sample Output

```
one hundred twenty three quadrillion four hundred fifty six trillion
seven hundred eighty nine billion one hundred twenty three million
four hundred fifty six thousand seven hundred eighty nine
two hundred million three hundred seventy
nine hundred eighty seven million six hundred fifty four thousand
three hundred twenty one
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