

In this problem, you will be given one or more integers in English. Your task is to translate these numbers into their integer representation. The numbers can range from negative 999,999,999 to positive 999,999,999. The following is an exhaustive list of English words that your program must account for:

negative, zero, one, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty, thirty, forty, fifty, sixty, seventy, eighty, ninety, hundred, thousand, million

Input

The input file contains multiple descriptions of integers in English, one per line, in conformity with the following requirements:

1. Negative numbers will be preceded by the word ‘negative’.
2. The word ‘hundred’ is not used when ‘thousand’ could be. For example, 1500 is written “one thousand five hundred”, **not** “fifteen hundred”.

Output

For each input line, write the corresponding number. Answers are expected to be on separate lines with a newline after each.

Sample Input

```
six
negative seven hundred twenty nine
one million one hundred one
```

Sample Output

```
6
-729
1000101
```