Legible Words   X65131_en

In computer science we often consider *words* made of letters. Usually these are arbitrary strings of letters, but in practice, not all of such words would be legible (for example, it is hard to pronounce *bcabcbca*).

It is hard to define whether a word is legible. In this problem, we assume that a word is legible iff there are no three consecutive consonants.

Your task is to calculate the number of legible words of given length, using the given letters.

Input

Input consists of several cases. Each case consists of three numbers: C (the number of considered consonants), V (the number of considered vowels), N (the length of the words to consider). We have $1 \leq C \leq 50$, $1 \leq V \leq 50$, $1 \leq N \leq 100$.

After the last case the input contains a line containing 0 0 0.

Output

Output the number of legible words. It is guaranteed that it will never be greater than 10^{18}.

Sample input 1

```
3 2 1
3 2 2
3 2 3
3 2 4
0 0 0
```

Sample output 1

```
5
25
98
436
```

We have three consonants and two wowels, say, *a*, *b*, *c*, *d*, *e*. According to our definition, there are 5 words of length 1 (all letters), and 25 words of length 2 (all possible pairs of letters). At length 3 the answer is 98 (out of 5^3 possible words, 3^3 consists of only wowels, which makes them illegible).

Problem information

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