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## Counting cool words

P67933\_en

Examen parcial d'Algorísmia, FME (2010-10-26)

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In this problems, we say that a word is cool if it does not have two consecutive consonants. Write a program to compute how many words with  $n$  lowercase letters,  $v$  of which are vowels, are cool.

For instance, these are some of the many cool words for  $n = 5$  and  $v = 3$ :

aabab ababa babaa toiep zeyui

Remember that there are 5 vowels and 21 consonants.

### Input

Input consists of several cases, each with two natural numbers  $1 \leq n \leq 15$  and  $0 \leq v \leq n$ .

### Output

For every case, print the number of cool words with  $n$  lowercase letters,  $v$  of which are vowels. This number is always smaller than  $10^{18}$ .

#### Sample input

```
1 0
1 1
2 0
2 1
2 2
3 0
3 1
3 2
3 3
5 3
15 9
15 6
15 15
```

#### Sample output

```
21
5
0
210
25
0
2205
1575
125
330750
35177510566406250
0
30517578125
```

### Problem information

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