



## E. Camels

time limit per test: 2 seconds  
memory limit per test: 64 megabytes

Bob likes to draw camels: with a single hump, two humps, three humps, etc. He draws a camel by connecting points on a coordinate plane. Now he's drawing camels with  $t$  humps, representing them as polylines in the plane. Each polyline consists of  $n$  vertices with coordinates  $(x_1, y_1), (x_2, y_2), \dots, (x_n, y_n)$ . The first vertex has a coordinate  $x_1 = 1$ , the second —  $x_2 = 2$ , etc. Coordinates  $y_i$  might be any, but should satisfy the following conditions:

- there should be  $t$  humps precisely, i.e. such indexes  $j$  ( $2 \leq j \leq n - 1$ ), so that  $y_{j-1} < y_j > y_{j+1}$ ,
- there should be precisely  $t - 1$  such indexes  $j$  ( $2 \leq j \leq n - 1$ ), so that  $y_{j-1} > y_j < y_{j+1}$ ,
- no segment of a polyline should be parallel to the  $Ox$ -axis,
- all  $y_i$  are integers between 1 and 4.

For a series of his drawings of camels with  $t$  humps Bob wants to buy a notebook, but he doesn't know how many pages he will need. Output the amount of different polylines that can be drawn to represent camels with  $t$  humps for a given number  $n$ .

### Input

The first line contains a pair of integers  $n$  and  $t$  ( $3 \leq n \leq 20$ ,  $1 \leq t \leq 10$ ).

### Output

Output the required amount of camels with  $t$  humps.

### Examples

<b>input</b>	<a href="#">Copy</a>
6 1	
<b>output</b>	<a href="#">Copy</a>
6	

<b>input</b>	<a href="#">Copy</a>
4 2	
<b>output</b>	<a href="#">Copy</a>
0	

### Note

In the first sample test sequences of  $y$ -coordinates for six camels are: 123421, 123431, 123432, 124321, 134321 и 234321 (each digit corresponds to one value of  $y_i$ ).

### → Attention

The package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, a solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then the value 800 ms will be displayed and used to determine the verdict.

### Codeforces Beta Round 14 (Div. 2)

Finished

Practice



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Language: [GNU G++23 14.2 \(64 bit, ms\)](#)

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### → Last submissions

Submission	Time	Verdict
<a href="#">326393069</a>	Jun/28/2025 13:00	Accepted

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