## Correct expressions                                              P68813_en

Concurs On-line OIE 2007 (2007)

In this problem we consider the expressions defined as follows:

- Every variable is a correct expresion;

- if $x$ is a correct expression, so is $(x)$;

- if $x_1$ and $x_2$ are correct expressions, so are $(x_1) - (x_2)$;

- nothing else is a correct expression.

For instance, if the set of variables is $A, B, C$, these are some correct expressions:

$$A \qquad (A) \qquad ((C)) \qquad (A) - (B) \qquad ((A) - (B)) - (A)$$

Write a program that, given two numbers $n$ and $m$, prints the number of correct expressions of length exactly $n$ that can be made up with $m$ variables.

For instance, for $n = 7$ and $m = 2$ the result should be 6, corresponding to

$$(((A))) \qquad (((B))) \qquad (A) - (A) \qquad (A) - (B) \qquad (B) - (A) \qquad (B) - (B)$$

### Input

Input consists of several cases, each with two natural numbers $n$ and $m$ between 1 and 25.

### Output

For every case, print the number of correct expressions of length exactly $n$ that can be made up with $m$ variables. This number will always be smaller than $10^9$.

### Sample input

```
7 2
1 20
20 1
21 1
25 25
```

### Sample output

```
6
20
0
212
307378150
```

### Problem information

Author : Omer Giménez
Translator : Salvador Roura
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