

Ackermann

Extracted from: TPY0001

Source file name: `ack.py`

Time limit: 3

The Ackermann function, $A(m, n)$, is defined:

$$A(m, n) = \begin{cases} n + 1 & \text{if } m = 0 \\ A(m - 1, 1) & \text{if } m > 0 \text{ and } n = 0 \\ A(m - 1, A(m, n - 1)) & \text{if } m > 0 \text{ and } n > 0 \end{cases}$$

Input

The input consists of 2 positive integers in a single line.

The input must be read from standard input.

Output

Print the evaluation of the *Ackermann* function.

The output must be written to standard output.

Sample Input	Sample Output
3 4	125

Note 1: Using loops is not allowed.

Note 2: What happens for larger values of m and n ?