

Ackermann Function

Ackermann function formula is:

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

Format Input

Contains 2 integer M and N stating the given value of ackermann function.

Format Output

Output of the calculation with a format "*result: X*", where X is the result of ackermann function.

Constraint

- $1 \leq M \leq 3$
- $1 \leq N \leq 10$

Sample Input (file)

```
2 1
```

Sample Output (standard output)

```
result: 5
```

Note

```
A (2, 1) = A (1, A (2, 0))
          = A (1, A (1, 1))
          = A (1, A (0, A (1, 0)))
          = A (1, A (0, A (0, 1)))
          = A (1, A (0, 2))
          = A (1, 3)
          = A (0, A (1, 2))
          = A (0, A (0, A (1, 1)))
          = A (0, A (0, A (0, A (1, 0))))
          = A (0, A (0, A (0, A (0, 1))))
          = A (0, A (0, A (0, 2)))
          = A (0, A (0, 3))
          = A (0, 4)
          = 5
```