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.

Constraints

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

Sample Input 1 (standard input)

```
2 1
```

Sample Output 1 (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

Ackermann Function

Rumus dari fungsi Ackermann adalah:

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

Format Input

Berisi 2 bilangan bulat M dan N yang menyatakan nilai fungsi Ackermann.

Format Output

Output dari perhitungan dengan format "result: X", dimana X adalah hasil dari fungsi Ackermann.

Constraints

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

Sample Input 1 (standard input)

```
2 1
```

Sample Output 1 (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