

Ackermann Function

Ackermann function formula is:

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

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 < *M* < 3

• $1 \le N \le 10$

Sample Input 1 (standard input)

2 1

Sample Output 1 (standard output)

result: 5

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Note

$$A (2, 1) = A (1, A (2, 0))$$

$$= A (1, A (1, 1))$$

$$= A (1, A (0, A (1, 0)))$$

$$= A (1, A (0, A (0, 1)))$$

$$= A (1, A (0, 2))$$

$$= A (1, 3)$$

$$= A (0, A (1, 2))$$

$$= A (0, A (0, A (1, 1)))$$

$$= A (0, A (0, A (0, A (1, 0))))$$

$$= A (0, A (0, A (0, A (0, A (0, 1))))$$

$$= A (0, A (0, A (0, A (0, 2)))$$

$$= A (0, A (0, A (0, 3))$$

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Ackermann Function

Rumus dari Ackermann function adalah:

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

Format Input

Berisi 2 bilangan bulang M dan N yang menyatakan nilai fungsi ackermann

Format Output

Output dari perhitungan dengan format "result: X", dimana X adalah hasil dari ackermann function

Constraints

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

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Sample Input 1 (standard input)

2 1

Sample Output 1 (standard output)

result: 5

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$$= A (0, A (1, 2))$$

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$$= A (0, A (0, A (0, A (1, 0))))$$

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