

Binomial Coefficient

Time limit: 1 sec

A binomial coefficients, denoted by $C(n,k)$, can be defined recursively as follows.

$$C(n,k) = \begin{cases} 1 & ; \text{if } n=k \text{ or } k=0 \\ C(n-1,k-1) + C(n-1,k) & ; \text{if } 1 \leq k \leq n-1 \end{cases}$$

Your task is to calculate $C(n,k)$.

Input

Input has exactly one line containing two positive integer **N** and **K** ($1 \leq K \leq N \leq 30$)

Output

Output exactly one line containing $C(n,k)$

Example

Input	Output
10 3	120
10 10	1
30 15	155117520