

Consider that  $a_{i,j}$  is defined as:

$$a_{i,j} = \begin{cases} \begin{cases} \max_{i < k \leq n} (a_{k,1} + a_{k,j}) & , i < n \\ 0 & , i = n \end{cases} + \begin{cases} \max_{1 \leq k < j} (a_{i,k} + a_{n,k}) & , j > 0 \\ 0 & , j = 0 \end{cases} & , i \geq j \\ \max_{i \leq k < j} (a_{i,k} + a_{k+1,j}) & , i < j \end{cases}$$

You are to calculate the value of  $a_{1,n}$  on the basis of the values of  $n$  and  $a_{n,1}$ .

## Input

The input consists of several test cases. Each Test case consists of two integers  $n$  ( $0 < n < 20$ ) and  $a_{n,1}$  ( $0 < a_{n,1} < 500$ ).

## Output

For each test case your correct program should print the value of  $a_{1,n}$  in a separate line.

## Sample Input

```
5 10
4 1
6 13
```

## Sample Output

```
1140
42
3770
```