Equation

Input file: standard input
Output file: standard output

Time limit: 1 second Memory limit: 256 megabytes

Given two numbers X and N. Print the result of the following equation:

$$S = (X^{0} - 1) + (X^{2}) + (X^{4}) + (X^{6}) + \dots + (X^{N})$$

Note: Solve this problem using function and don't use built-in function.

Input

Only one line contains two numbers X and N $(0 \le X, N \le 10)$

Output

Print the equation result S.

Example

standard input	standard output
5 5	650

Note

First Test:

$$(5^0 - 1) + 5^2 + 5^4 = 0 + 25 + 625 = 650.$$