C. Number Series

Time Limit: 3 seconds

Problem description

Users are required to enter an integer x and a positive integer n. The system displays sum of the series below:

$$1 + \frac{x}{1} - \frac{x^2}{2!} + \frac{x^3}{3!} - \cdots + \frac{(-1)^{n-1}x^n}{n!}$$

Input:

x is an integer number which is -100 <= x <= 100

n is an integer number which is 0 <= n <= 100

Output:

The sum of the series

Note that, the sum must be rounded to 6 digits after the decimal point.

Example 1:

Input	Output
2 4	1.666667

Example 2:

Input	Output
-3 6	-17.4125