[**LAB3_4**] A geometric series that computes the sum of the geometric sequence up to n can be defined as follows:

$$Y = \sum_{i=0}^{n-1} ar^i = a + a.r^1 + a.r^2 + \ \ldots + a.r^{n-1}$$

where a is the first term of the sequence and

r is a common ratio

n is the length of the sequence.

Given a, r and n, write a C program to compute the sum of the geometric series.

Input

a r n denotes the first term of the sequence, a common ratio and n is the sequence length, separating a white space, where 0.000 < a, r < 1000.000 and 1<= n <= 1000

Output

The sum of the geometric series with three decimal places.

Input sample	Output sample
1 1.2 5	7.442
0.25 3.00 10	7381.000