Sum of GP

A geometric progression is a sequence of numbers where each term after the first is found by multiplying the previous one by a fixed, non-zero number called the common ratio. For example, 1, 3, 9, 27, 81 is a GP with the common ratio as 3.

Given the second and third terms of a GP, return the sum till the nth term of the GP.

The output returned should be a double value representing the sum till the nth term of the GP, rounded off to 3 decimal places.

Input Specification:

input1: Second Term of GP (Double)

input2: Third Term of GP (Double)

input3: Value of n

Output Specification:

Return a double value representing the sum till the nth term, rounded off to 3 decimal places.

Example 1:

input1: 1

input2: 2

input3: 4

Output: 7.5

Explanation:

The sum of the elements of the GP i.e. (0.5 + 1 + 2 + 4) = 7.5

Example 2:

input1: 1

input2: 2

input3: 5

Output: 15.5

Explanation:

The sum of the elements of the GP i.e. (0.5 + 1 + 2 + 4 + 8) = 15.5