Wubba Lubba Dub Dub

Story And Question:

Emric gets in trouble with Galactic Federation. Emric is planning to beam the federation to an N dimensional space, between N+2 bomb that explodes while expanding in (N-1)th dimension(Type of the bombs are n-sphere).
Bombs ranges varies in certain intervals randomly. Galactic Federation's energy and protection shields are (N-1)-spheres.
The shield which protects the federation is an N-1 dimensional sphere.
However Emric finds out that, federation doesn't effect from the explosion if when the conditions satisfied.
The conditions are like that:
1) Galactic Federation's protection shield must be tangent to all bombs inside it.
2) All bombs must be tangent to energy field at center.
3) Each bomb must be tangent to bomb next to it, also the last bomb must be tangent to the first bomb.

Emric doesn't want to risk anything, so he decides to create a simulation program. Can you help him to simulate the explosion?

INPUT FORMAT:

First line contains an integer N, denoting dimension of the space.
Second line contains an integer X, denoting minimum value of bombs range.
Third line contains an integer Y, denoting maximum value of bombs range.

Constraints:

$3 \leq N \leq 17$

$3 \leq X \leq 80000$

$6000 \leq Y \leq 130000$

Output Format:

Output the probabilty of federation to survive.
It is decent if the outputs first three floating figure matches.

Sample Input:

3
5
90000

Sample Output:

0.006

Explanation: