Another Dimension Problem ID: a01p05anotherdimension

Time to take your brains to another dimension. Pay close attention!

The volume of a sphere can be calculated as $V = \frac{4}{3}\pi r^3$.

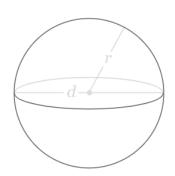
Now imagine we have a hemisphere, also known as a half-sphere, so a sphere where one half has been removed.

Given the diameter of the original sphere, output the volume of the half-sphere. Note that the diameter of a sphere is defined as double the radius of the same sphere.

Hint: you can use the pi variable in the math module.

Input

Input consists of one line with one floating point number d, the diameter of the sphere, where $0 \le d \le 1000$. It is guaranteed that the number is given with at most two digits after the decimal point.



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Output

Output consists of one line with one floating point number, the volume of the half-sphere. The output number should have an absolute or relative error of at most 10^{-9} .

Sample Input 1	Sample Output 1
4.8	28.952917895483527
Sample Input 2	Sample Output 2
6	56.548667764616269
Sample Input 3	Sample Output 3
20	2094.395102393195430
Sample Input 4	Sample Output 4
2	2.094395102393195