375   Inscribed Circles and Isosceles Triangles

Given two real numbers

B the width of the base of an isoceles triangle in inches

H the altitude of the same isoceles triangle in inches

Compute to six significant decimal places

C the sum of the circumferences of a series of inscribed circles stacked one on top of another from the base to the peak; such that the lowest inscribed circle is tangent to the base and the two sides and the next higher inscribed circle is tangent to the lowest inscribed circle and the two sides, etc. In order to keep the time required to compute the result within reasonable bounds, you may limit the radius of the smallest inscribed circle in the stack to a single precision floating point value of 0.000001.

For those whose geometry and trigonometry are a bit rusty, the center of an inscribed circle is at the point of intersection of the three angular bisectors.

Input

The input will be a single line of text containing two positive single precision real numbers (B H) separated by spaces.

Output

The output should be a single real number with twelve significant digits, six of which follow the decimal point.