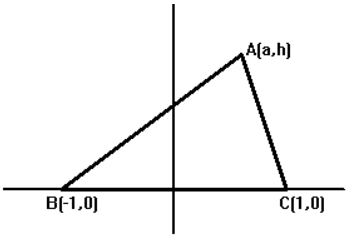
Problem K
Quartered Horse Pastures
Time limit: 6 seconds

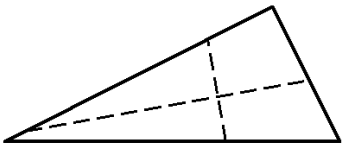
Farmer Jim has four horses and a triangular field he would like to split up into four equal area pastures by building two perpendicular fences across the field.

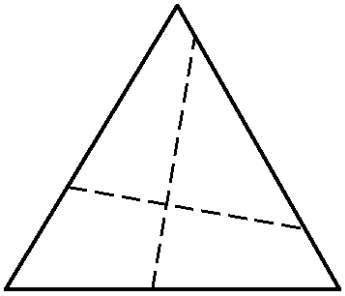


Surveyor Bob's triangle.

Jim draws a few pictures but cannot get the four areas to be the same, so he calls up his friend, surveyor Bob. Bob cannot find a button for this case on his magic surveying machine, but does do a layout to make it more generic. He chooses his X-axis to lie along the longest side of the triangle with the origin at the center of that side. Then he chooses units so that the chosen side is two units long. In this coordinate system, the vertices of the triangle are at $(-1, 0), (1, 0)$ and (a, h). After this Bob is stumped, so he asks you to write a program to figure out where to put the fences.

Write a program which takes as input the coordinates of the third point (a, h) and finds two perpendicular lines (fences) which split the triangular property into four equal area pastures. Return the coordinates of the point where the two fences intersect and the slope of the fence which is closer to horizontal. If there is more than one pair of fences meeting these criteria, return the pair whose most horizontal fence has the smallest absolute slope.


Figure K.1: Solution for the first sample input


Figure K.2: Solution for the second sample input

Input

Input consists of a single line containing two decimal floating-point values a and h ($0.0 \leq a, 0.2 \leq h, (a + 1)^2 + h^2 \leq 4.0$).

Output

Output a line containing three values cx, cy and s, where cx, cy are the coordinates of the line crossing point and s is the slope of the line whose slope has the smallest absolute value. Inputs will be chosen so that the solution slope lies between -0.5 and $min(1.0, h/a)$. Your answer should have an absolute error less than .000002.

Sample Input 1	Sample Output 1
0.6 0.8	0.27226856 0.26855268 0.18006179

Sample Input 2	Sample Output 2
0.03 1.7	-0.03591811 0.51195245 -0.17367191