Minimum Distance

Problem Description

Two riders A and B are travelling on a highway towards each other on two roads that intersect at right angle at speeds $\mathbf{V_A}$ meters/second and $\mathbf{V_B}$ meters/second. A is at a distance of **'x'** meters and B is at a distance of **'y'** meters from the intersection. Calculate the minimum distance between these two riders that is possible.

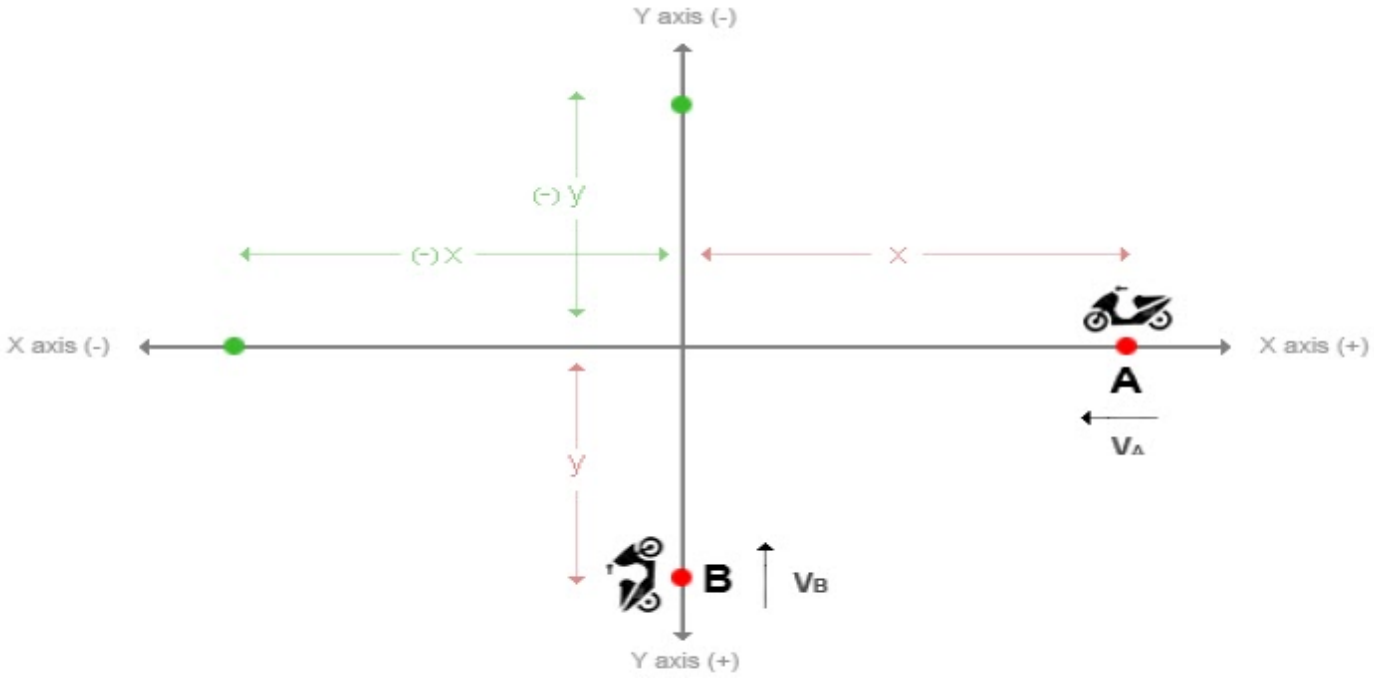

Fig:Approaching Intersection

Input Format:

First line contains the distance of Rider A from intersection denoted by x
Second line contains the distance of Rider B from intersection denoted by y
Third line contains the Velocity of Rider A denoted by V_A
Fourth line contains the Velocity of Rider B denoted by V_B

Output Format:

Print the minimum distance between these two riders, if minimum distance is non-zero. If minimum distance is zero, print it as 0.0

Constraints:

$x > 0$

$y > 0$

$V_A > 0$

$V_B > 0$

Calculation and printing of output should be done up to 11-precision

Sample Input and Output

Sr No.	Input	Output
1	100 100 10 10	0.0
2	500 300 20 14	41.18252056395
3	100 100 30 40	22.36067977500
4	0 50 -20 30	Invalid Input