CodeVita
The TCS Global Coding Contest

Ranick Patra

00 Hr 25 Min 35 Sec

- Guidelines
- Coding Area
- Editor | Compile & Run History
- Submissions
- Feedback Form
- Result
- Graphs

Coding Area

A B C D E F

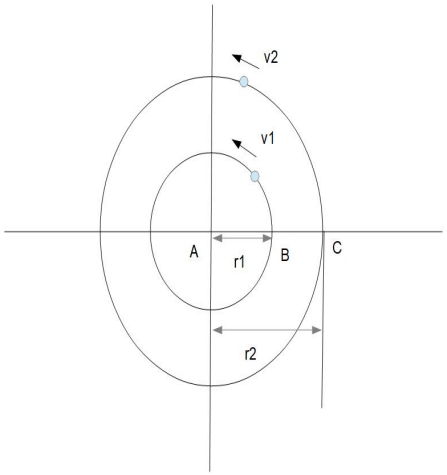
ONLINE EDITOR (B)

Circles and Distances

Problem Description

Task is to calculate the straight line distance between the two objects moving in a circular path. They may move at different velocities. The distance has to be calculated after N seconds.

The figure and commentary below it, explains the problem in detail.



We have two point objects B and C at rest on a straight line at a distance r1 and r2 units from a point A. At time t=0 seconds, the objects start moving in a circular path with A at the center with velocity v1 and v2 degrees per second.

Given inputs v1, v2, r1 and r2, calculate the distance between the B and C after N seconds.

Distance should be printed up to an accuracy of 2 places after the decimal point. Use Rounding Half-up semantics.

Input Format

First line contains velocity of object B in degrees per second (v1)

Second line contains distance of object B from A (r1)

Third line contains velocity of object C in degrees per second (v2)

Fourth line contains distance of object C from A (r2)

Fifth line contains time in seconds after which the distance between B and C, is to be measured (N)

Output

The distance between B and C, N seconds after they are set in motion

Constraints

v1, v2, r1, r2 > 0 and all are integer values.

r2 > r1

0 < n <= 100

The objects move in anticlockwise direction

v1, v2 <=360

r2 <= 100

Explanation

Example 1

Input

90

5

270

10

1

Output

15.00

Explanation

After 1 second, the object at B would cover 90 degrees and the object at C would cover 270 degrees. Both the objects would be vertically opposite to each other and would lie in a straight line.

So the distance between them would be equal to the sum of their distance from the origin A=5+10= 15 units

Upload Solution [Question : B]

☐ I, **ranick patra** confirm that the answer submitted is my own. ☐ Took help from online sources (attributions)

Choose a File ...

Careers