

PROBLEM 11

Circle Intersection

In this problem you must write a program that determines if two circles intersect each other. The input to your program will be the coordinates for the center of each circle, followed by the radius of each circle.

The output will state whether the circles overlap, do not overlap, or are tangential (i.e., tangential circles touch each other at just one common point).

Example 1:

Enter the coordinates and radius for circle 1: 10 10 3

Enter the coordinates and radius for circle 2: 10 6 1

The circles are tangential.

Example 2:

Enter the coordinates and radius for circle 1: 8 8 3

Enter the coordinates and radius for circle 2: 8 4 2

The circles overlap.