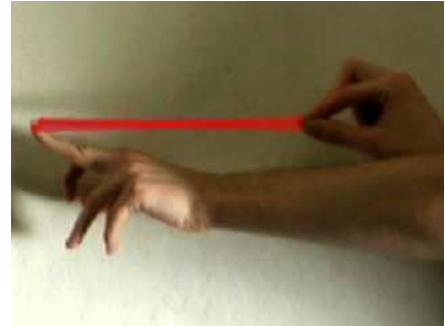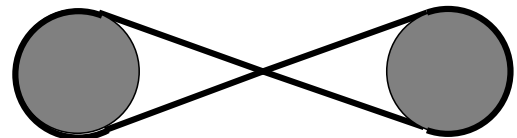# Problem D- Rubber Bands

There are two obvious ways to wrap a rubber band around two circular posts: one with no twist and one with a half twist. How long will the rubber bands stretch to in each case?

Input Specification:

There will be several test cases, one per line. The input will specify two non-intersecting circles in the plane, by the numbers x_1 y_1 r_1 x_2 y_2 r_2, the coordinates of their centres and radii. Input ends with EOF.

or

Output Specification:

You will output the length of the rubber band, the first will be with no twist, the second with a half twist. All cases should be correct to 3 decimals.

Sample Input:

```
-5.0 0.0 2 5.0 0 2
-5.0 0.0 2 5.0 0 3
```

Sample Output:

```
32.566 34.189
35.808 38.264
```