

## Problem E. Circle and line

**Time limit** 1000 ms

**Mem limit** 131072 kB

There is a circle of radius  $R$  with center at  $(x, y)$  and the line that is given with the coordinates of its two points. Find the length of the line segment inside the circle.

### Input data

One line contains radius of the circle  $R$ , the coordinates  $(x, y)$  of the circle center and coordinates of two points on the line. All numbers are integers, not greater than 10000 by absolute value.

### Output data

Print the length of the line segment inside the circle with 5 digits after the decimal point. If the circle and the line do not intersect, print -1, if touches - print 0.

#### Sample 1

Input	Output
5 0 0 4 1 4 2	6.00000