

time limit per test: 0.25 sec.  
memory limit per test: 4096 KB  
input: standard  
output: standard

Consider two points A and B located strictly inside of some circle in Cartesian coordinate system. Your task is to find a point C on the circle such that the angle ACB is maximal possible.

**Input**

On first line of input file there is one integer N - number of tests ( $1 \leq N \leq 10000$ ). I+1-th line describes I-th test case in format  $X_0, Y_0, R, X_A, Y_A, X_B, Y_B$ , where  $(X_0, Y_0)$  is center of the circle, R is radius of the circle,  $(X_A, Y_A)$  are point A coordinates,  $(X_B, Y_B)$  are point B coordinates. All numbers are integers.  $X_0, Y_0, R$  are not greater than 10000 by absolute value.

**Output**

Output file must contain N lines, exactly one for each test case. For each case you must output  $X_C$  and  $Y_C$  - coordinates of point C, described in statement, with precision of six digits after decimal point. If there are many solutions, output any one of them.

**Sample test(s)**

Input

```
2
0 0 2 1 1 -1 1
0 0 2 0 1 1 0
```

Output

```
0.000000 2.000000
1.414214 1.414214
```