Input:

The input contains (x1,y1,x1,y2,x3,y3) of three points A, B, C.

Output:

Write the degrees of three angles with two digits after decimal point.

Hint: Given the length of triangle’s sides (i.e. a,b,c),

Examples

Input:

1, 1, 6.5, 1, 6.5, 2.5

Output:

15.26, 90, 74.74