

## Problem C

### Smart Building

Time Limit: 1 second

The city government approves the construction of smart buildings on a straight line passing through the two landmarks  $(x_1, y_1)$  and  $(x_2, y_2)$ . The licensed investors are only allowed to build smart buildings on locations with integer coordinates on this line.

A smart control center with operating radius  $R$  is located at position  $(x_0, y_0)$  to ensure the security and to control smart services of the buildings. Therefore, only buildings with the distance to the control center less than or equal to the operating radius are supported.



Find the number of buildings that are supported by the smart control center.

### Input

The first line contains three integers  $x_0, y_0, R$  ( $|x_0|, |y_0| \leq 10^9$ ;  $1 \leq R \leq 10^9$ ).

The second line contains four integers  $x_1, y_1, x_2, y_2$  ( $|x_i|, |y_i| \leq 10^9$ ;  $i = 1, 2$ ).

### Output

Print the number of smart buildings that are supported by the smart control center.

### Sample Input

### Sample Output

2 3 4 -2 3 0 3	9
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