

Your task is to write a program to calculate for Bob's mother the number of items she must move before she can remove the item of her choice.

INPUT:

Input to this problem consists of a sequence of one or more situations. Several lines describe each situation as follows:

- The first line contains the number of crockery items M , $0 < M < 100$; given as an integer.
- The second line consists of $4 * M$ integers (i.e., M pairs of 2-dimensional coordinates), separated by a single space, that describe the exact positions of crockery items in the flat cupboard.
- The third line consists of four (4) integers (i.e., a pair of 2-dimensional coordinates), separated by a single space, that describe the exact position of the item to be removed.

The input will be terminated by a line that consists of a zero (0). This line should not be processed.

OUTPUT:

For each situation, the output is a single line that contains the number of objects to be removed before the desired item can be removed in accordance with Bob's mother desires.

EXAMPLE INPUT:

```
5
0 0 4 4 3 4 6 6 5 0 7 4 4 6 5 8 20 0 21 21
20 0 21 21
4
0 0 4 4 3 4 6 6 5 0 7 4 4 6 5 8
0 0 4 4
0
```

EXAMPLE OUTPUT:

```
0
2
```