

Four Square

Problem ID: foursquare

Time limit: 4 seconds

Inspired by a Piet Mondrian painting, you want to make a four-pane window out of four colored rectangles of glass. You are given the sizes of the four panes of glass. Can you arrange them into a square? You may rotate the panes. The panes should cover the entire square without overlap.

Input

The input consists of exactly four lines. Each of the four lines contains two integers w and h ($1 \leq w, h \leq 1\,000$), representing the width and height of one of the four rectangular panes of glass.

Output

Output a single integer, which is 1 if the four panes can be arranged to form a square, and 0 otherwise.

Sample Input 1

```
1 1
1 1
1 1
1 1
```

Sample Output 1

```
1
```

Sample Input 2

```
3 1
3 3
2 2
3 3
```

Sample Output 2

```
0
```