



Hot and Cold

locked

by kevinso

Problem

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Carl, Caroline, Helen, and Han are four friends sharing a one-room workspace. The workspace has a single thermostat which they can set to any integer temperature between **35** degrees to **95** degrees Fahrenheit, inclusive.

The four friends can't agree on the room's temperature! Carl and Christina don't want it to be too cold, while Helen and Han don't want it to be too hot. Specifically:

- Carl wants it to be *at least* c_1 degrees Fahrenheit.
- Caroline wants it to be *at least* c_2 degrees Fahrenheit.
- Helen wants it to be *at most* h_1 degrees Fahrenheit.
- Han wants it to be *at most* h_2 degrees Fahrenheit.

Given c_1 , c_2 , h_1 , and h_2 , is there a satisfactory temperature that all four friends will be happy with? If it's possible, print YES ; otherwise, print NO .

Input Format

Four space-separated integers describing the respective values of c_1 , c_2 , h_1 , and h_2 .

Constraints

- $35 \leq c_1, c_2, h_1, h_2 \leq 95$

Output Format

Print YES if it's possible to satisfy all four friends' conditions; otherwise, print NO instead.

Sample Input 0

```
50 40 70 60
```

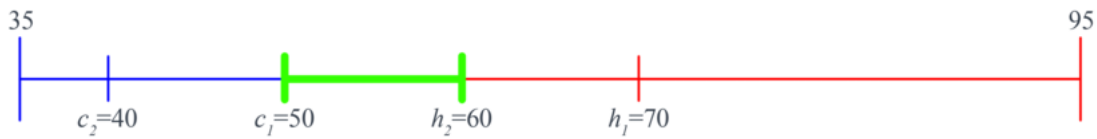
Sample Output 0

```
YES
```

Explanation 0

The four friends have the following temperature preferences:

- Carl wants it to be *at least* $c_1 = 50$ degrees.
- Caroline wants it to be *at least* $c_2 = 40$ degrees.
- Helen wants it to be *at most* $h_1 = 70$ degrees.
- Han wants it to be *at most* $h_2 = 60$ degrees.



Any temperature between **50** and **60** degrees will satisfy all four friends, so we print YES.

Sample Input 1

```
55 66 66 77
```

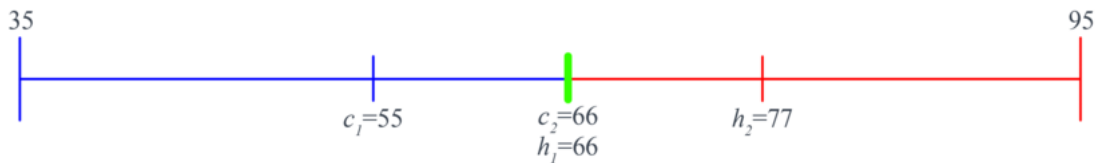
Sample Output 1

```
YES
```

Explanation 1

The four friends have the following temperature preferences:

- Carl wants it to be *at least* $c_1 = 55$ degrees.
- Caroline wants it to be *at least* $c_2 = 66$ degrees.
- Helen wants it to be *at most* $h_1 = 66$ degrees.
- Han wants it to be *at most* $h_2 = 77$ degrees.



A temperature of exactly **66** degrees will satisfy all four friends, so we print YES.

Sample Input 2

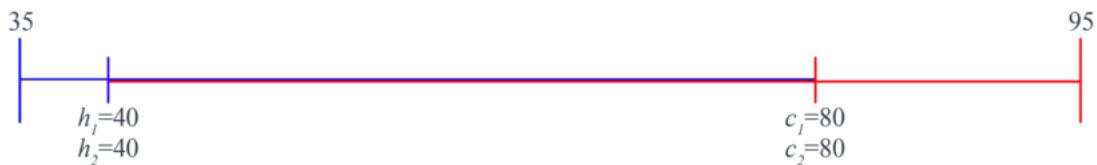
```
80 80 40 40
```

Sample Output 2

```
NO
```

Explanation 2

In this test case, Carl wants the temperature to be at least $c_1 = 80$ and Helen wants it to be at most $h_1 = 40$. There is no temperature that is both ≥ 80 and ≤ 40 , so we print NO because no satisfactory temperature exists.



f t in



Submissions: 1707

Max Score: 15

Difficulty: Easy

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★★★★★ Thanks!

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C#



```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 using System.Linq;
5 class Solution {
6
7     static string isSatisfiable(int c1, int c2, int h1, int h2){
8         // Complete this function
9         return Math.Max(c1, c2) <= Math.Min(h1, h2) ? "YES" : "NO";
10    }
11
12    static void Main(String[] args) {
13        // Return "YES" if all four conditions can be satisfied, and "NO" otherwise
14        string[] tokens_c1 = Console.ReadLine().Split(' ');
15        int c1 = Convert.ToInt32(tokens_c1[0]);
16        int c2 = Convert.ToInt32(tokens_c1[1]);
17        int h1 = Convert.ToInt32(tokens_c1[2]);
18        int h2 = Convert.ToInt32(tokens_c1[3]);
19        string result = isSatisfiable(c1, c2, h1, h2);
20        Console.WriteLine(result);
21    }
22 }
23
```

Line: 9 Col: 69

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