Maximum of a Section X35843_en

Given a sequence of integers, we specify a "section" of it using two integers @a@ and @b@. This is exactly as in the related problem Identifying Sections: the section is the part of the sequence that starts immediately after the first occurrence of @a@, if any, and ends immediately before the first occurrence of @b@ after the first occurrence of @a@, if any.

For instance, given the sequence 6, 5, 1, 2, 1, 4, 3, 5, 4, 3, 5, 1 with @a = 1@ and @b = 5@ we specify the subsequence 2, 1, 4, 3 that starts just after the first 1 and ends just before the first 5 after that 1.

Write a program that finds the maximum value of a specified section. In the case above, it would be 4. The input indicates first @a@ and @b@, in one line, separated with whitespace; the subsequent line (or lines) constitute the sequence.

In the related problem Identifying Sections, we knew the length of the sequence beforehand, and we had several cases. Those two aspects change here, as does the handling of empty sections: if @a@ does not appear in the sequence, of if it appears but @b@ does not appear subsequently, your program must print "nonexistent section"; if they appear but there are no intervening numbers, your program must print "empty section"; otherwise, your program must print "maximum is: " followed by the corresponding maximum value.

Sample input 1

```
1 5
6 0 1 2 1 4 3 5 4 3 5 1
```

Sample output 1

```
maximum is: 4
```

Sample input 2

```
7 5
6 0 1 2 1 4 3 5 4 3 5 1
```

Sample output 2

```
nonexistent section
```

Sample input 3

```
5 7
6 0 1 2 1 4 3 5 4 3 5 1
```

Sample output 3

```
nonexistent section
```

Sample input 4

```
2 1
6 0 1 2 1 4 3 5 4 3 5 1
```

Sample output 4

```
empty section
```

Sample input 5

```
6 7
6 8 1 2 1 4 3 5 4 3 5 7
```

Sample output 5

```
maximum is: 8
```

Problem information

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