
Intervals (1)

P51126_en

Write a program that, given two intervals, computes the interval corresponding to their intersection, or tells that it is empty.

Input

Input consists of four integer numbers a_1, b_1, a_2, b_2 that represent the intervals $[a_1, b_1]$ and $[a_2, b_2]$. Assume $a_1 \leq b_1$ and $a_2 \leq b_2$.

Output

Print “[]” if their intersection is empty, or “[x, y]” if this is their non-empty intersection.

Sample input 1

20 30 10 40

Sample output 1

[20,30]

Sample input 2

10 20 10 20

Sample output 2

[10,20]

Sample input 3

20 30 10 20

Sample output 3

[20,20]

Sample input 4

10 20 30 40

Sample output 4

[]

Problem information

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