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	Sample output 1
20 30 10 40	[20,30]

Sample input 2	Sample output 2
10 20 10 20	[10,20]

Sample input 3	Sample output 3
20 30 10 20	[20,20]

Sample input 4	Sample output 4
10 20 30 40	[]

Problem information

Author : Salvador Roura
Translator : Carlos Molina
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