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**Intersection (2)****X79913\_en**

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Let  $a, b, c, d$  be integers such that  $a \leq b$  and  $c \leq d$ . Write a function `@intersection2(a, b, c, d)` that computes the intersection of intervals  $[a, b]$  and  $[c, d]$ . When the intersection is non empty the function has to return tuple  $(True, p, q)$  where integers  $p$  and  $q$  are such that  $[p, q] = [a, b] \cap [c, d]$ . If the intersection is empty, the function must return tuple  $(False, 1, 0)$

**Sample session**

```
>>> intersection2(1, 5, 6, 7)
(False, 1, 0)
>>> intersection2(10, 16, 12, 15)
(True, 12, 15)
>>> intersection2(3, 5, 2, 11)
(True, 3, 5)
>>> intersection2(1, 4, 4, 6)
(True, 4, 4)
```

**Problem information**

Author: ProAl

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