

Exercise 2.8.

Using reasoning analogous to Alyssa's, describe how the difference of two intervals may be computed. Define a corresponding subtraction procedure, called `sub-interval`.

Answer.

Much similar to the multiplication operation, the difference of two intervals can be worked out by finding the minimum and maximum of the difference between the lower bound of one interval and the upper bound of the other and using them to represent the resulting interval.

```
(define (sub-interval x y)
  (let ((p1 (- (lower-bound x) (upper-bound y)))
        (p2 (- (upper-bound x) (lower-bound y))))
    (make-interval (min p1 p2)
                   (max p1 p2))))
```

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