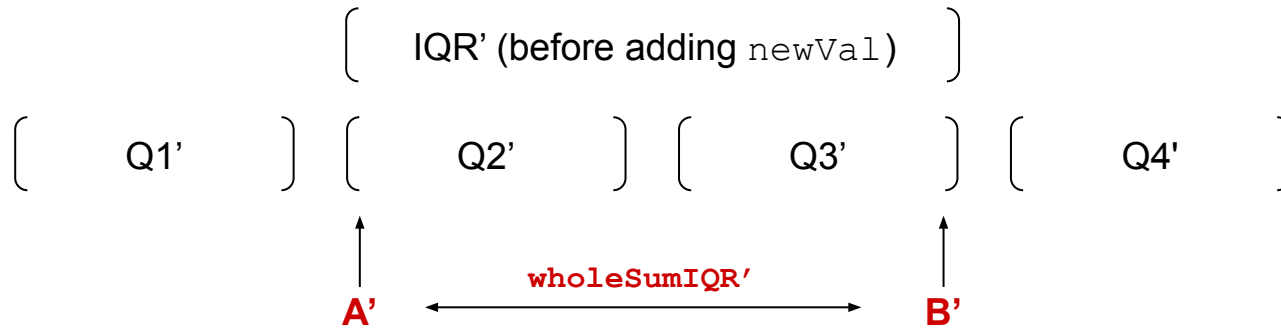


Strategy: Maintain a running “wholeSumIQR”, by tracking changes to the endpoints of the IQR (A & B), and whether newVal got inserted into the IQR

Note: “wholeSumIQR” is before any weighting of endpoints



```
public int idxA;    // index to first item of the IQR
public int valA;    // value before any weighting applied
public int idxB;    // index to last item of the IQR
public int valB;    // value before any weighting applied
public long wholeSumIQR = 0;    // sum before any weighting
                                // applied
```

Only 3 things can change “wholeSumIQR”:

- 1) “A” could move up one (higher) or down one (lower):
 - If “A” moved up one, then “wholeSumIQR” needs to have “valA’” subtracted
 - If “A” moved down one, then “wholeSumIQR” needs to have value added for item just prior to “idxA’” (which should be at “idxA’ - 1”)
- 2) “B” could move up one (higher) or down one (lower):
 - If “B” moved up one, then “wholeSumIQR” needs to have value added for item just after “idxB’” (which should be at “idxB’ + 1”)
 - If “B” moved down one, then “wholeSumIQR” needs to have “valB’” subtracted
- 3) “newVal” could have been inserted into the IQR
 - If “newVal” was inserted into the IQR, then “wholeSumIQR” needs to have “newVal” added

