Quiz 6 S18

Consider an array of size 6:

$$\{1, 5, 7, 1, 2, 3\} \rightarrow \text{return false}$$

$\downarrow$

split the array at indexes 0,1,2 and 3,4,5

$$\{1, 5, 7\} \qquad \{1, 2, 3\}$$

$\downarrow \qquad\qquad \downarrow$

split again as the arrays are of size 3 each (return false for both arrays)

$$\{1\} \; \{5, 7\} \qquad \{1\} \; \{2, 3\}$$

$\downarrow \qquad \downarrow \qquad\quad \downarrow \qquad \downarrow$

false   false   false   false

· It will fail here because the algorithm only compares the element with one of it's neighbors or the element is of size 1.

· The correct answer for my example should be true because within this array there exists a duplicate, as there exists two elements which are valued at 1 which are duplicates.