

## Smallest Subarray with given sum.

sum = 2

Input: [2, 1, 5, 2, 3, 2]  $S = 7$

sum = 3

[2, 1, 5, 2, 3, 2]

sum = 8

greater than

[2, 1, 5, 2, 3, 2]

sum = 6

[2, 1, 5, 2, 3, 2]

## Sliding Window

min-length = Math.inf

### Algorithm:

1. Add elements of the array from the beginning (Element by Element) until the sum of the elements is equal or greater than the  $S$
2. Once the window sum  $\geq S$  store the min (min-length, window size)
3. Remove the first element in the window and check for the condition again. If not true then increase the window size

4. <sup>U</sup>  $\min(\text{Previously stored len}(w), \text{New len}(w))$