Introduction to bubble sort Algorithm.

-15	7	20	1	-22	35	55
0	1	2	3	4	5	6.

unsortedpartitionIndex = 6 - this is the last
index of the unsorted partition.

index used to transveri the array
from left to right

$$i = 0.$$

Algorithm difficulty:

o In place Algorithm (extra varible like memory)
  but thats okay!

o $O(n^2)$ time complexity - quadratic

o It will take 100 steps to sort 10 items,
  10,000 steps to sort 100 items, 1,000,000
  steps to sort 100 0 itms.

o Algorithm degrades qurkly