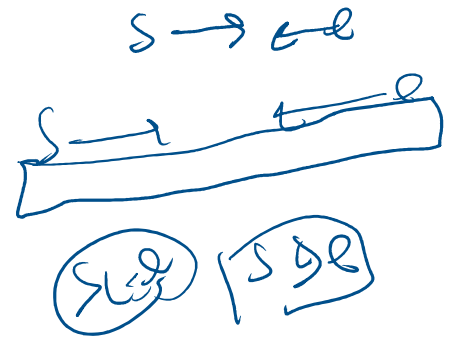
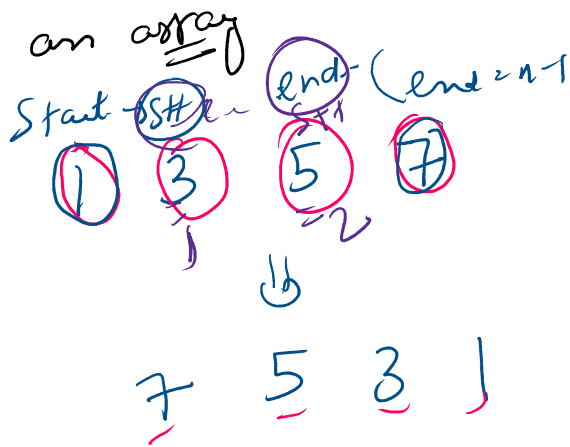


## 1.9 - Arrays - 2

Sunday, September 7, 2025 2:49 PM

# Reverse an array



⊕ Arrays are passed by Reference

# Subarray

[3, 1, 2, 5, 6]

[1, 2, 5] ✓

[1, 2, 6] X

[5, 2, 1] X

→ Any continuous portion of an array.

→ Sequence of the elements has to be maintained.

→ Empty array is also considered to be a subarray

o) [3, 1, 2, 4] [ ]

[3]

[1]

[2]  
[2, 4]

[4]

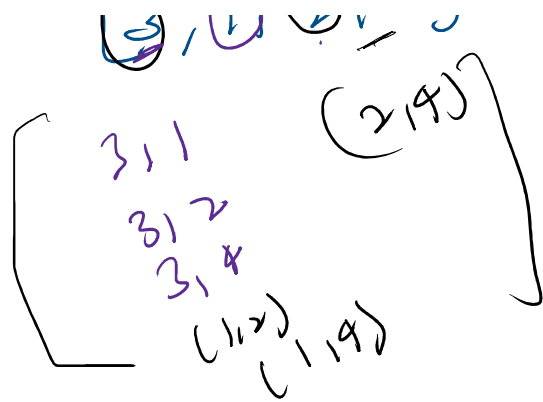
$[3]$   $[1]$   $[2, 4]$   
 $[3, 1]$   $[1, 2]$   
 $[3, 1, 2]$   $[1, 1, 4]$   
 $[3, 1, 2, 4]$

No of subarrays for an array of length  $n$   
 $= \frac{n \times (n+1)}{2}$  } without including empty

$[3, 1, 2]$   
 $[3] \rightarrow 3$   
 $[3, 1] \rightarrow 4$   
 $[3, 1, 2] \rightarrow 2$

# picking up pairs in array  
 $[3, 1, 2, 4]$   
 $(1, 4)$

for ( $i=0$ ;  $i < n$ ;  $i++$ ) {  
   for ( $j=i+1$ ;  $j < n$ ;  $j++$ ) {  
     // ...



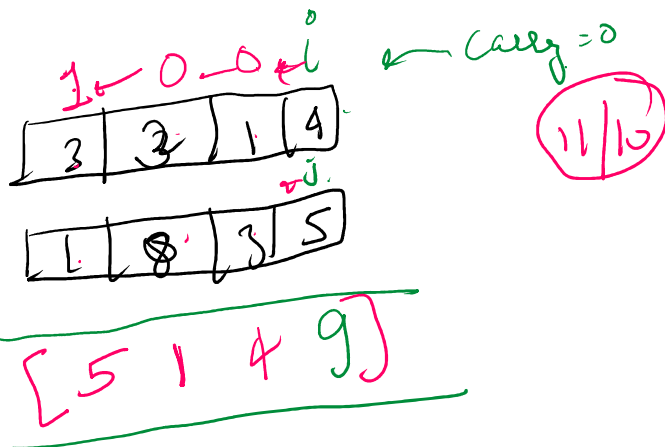
$[for(j = i+1; j < n; j++) \{ sort(arr[i], arr[j]); \}]$

$\Rightarrow y \propto x \Rightarrow$  geometric progression

$r=2$  1 2 4 8 16 32

$r=5$  3 15 75 375

# Array adding



#

$sum = sum + arr[i]$

$sum = 10$   
 $sum = 25$

$sum += arr[i]$   
 $sum -= arr[i]$

$r, t = C$

$$\Sigma \neq C$$

$$\Sigma + C$$

$$\boxed{\Sigma = \Sigma + C}$$

$$\boxed{\Sigma \neq C}$$

$$\Sigma = \Sigma / C$$

⊗⊗ Arrays have fixed size  
 can `int arr[] = new int[10]`

