

Set Operations on Array

- The set operations that can be performed on an array are UNION , INTERSECTION , DIFFERENCE , SET MEMBERSHIP

Unsorted arrays

A	3	5	10	4	6
	0	1	2	3	4
B	12	4	7	2	5
	0	1	2	3	4

sorted arrays

A	3	4	5	6	10
	0	1	2	3	4
B	2	4	5	7	12
	0	1	2	3	4

1. Union

- On unsorted array

$$C = A \cup B$$

C

3	5	10	4	6	12	7	2	
0	1	2	3	4	5	6	7	8

- On sorted array

$$C = A \cup B$$

2	3	4	5	6	7	10	12		
0	1	2	3	4	5	6	7	8	9

1. Intersection

- On unsorted array

$$C = A \cap B$$

C

5	4								
0	1	2	3	4	5	6	7	8	9

- On sorted array

$$C = A \cap B$$

C

4	5								
0	1	2	3	4	5	6	7	8	9

1. Difference

- On unsorted array

$$C = A - B$$

C	3	10	6							
	0	1	2	3	4	5	6	7	8	9

- On sorted array

$$C = A - B$$

C	3	10	6							
	0	1	2	3	4	5	6	7	8	9