

Merging of 2 Sorted Arrays

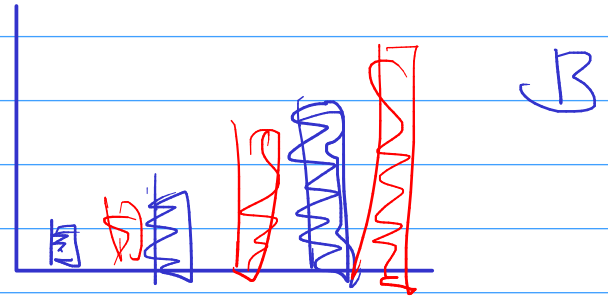
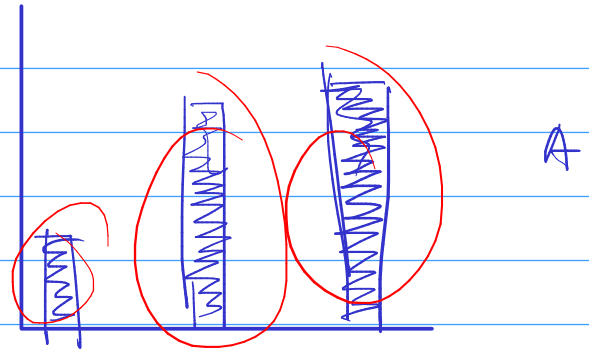
A: 1, 3, 7, 11

B: 2, 3, 4, 5, 6, 13, 17, 18

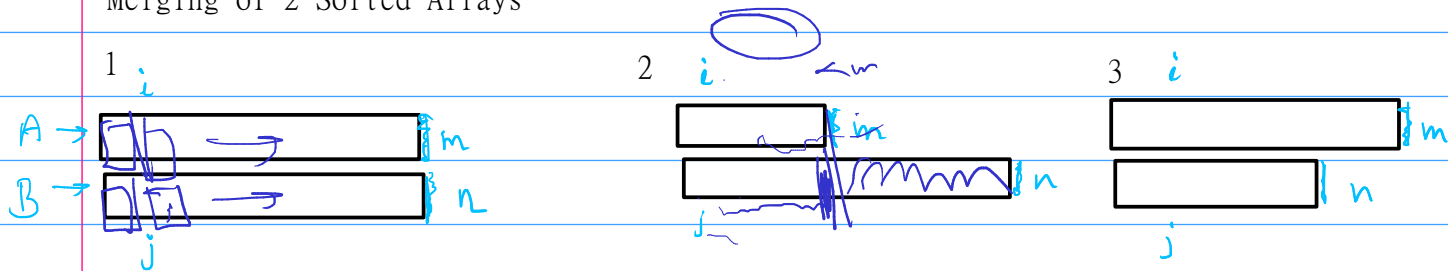
C: 1, 2, 3, 3, 4, 5, 6, 7, 11, 13, 17, 18

A: 1
B: x \Rightarrow 1

A: 7 = 7
B: 9 = 9



Merging of 2 Sorted Arrays



Pathikrit's Code

```
void merge(int *arr1, int *arr2)
{
    int k=0, i=0, j=0, size=n+m, s;
    int arr3[size];
```

```
    while(i <= n && j <= m) {
        if(arr1[i] < arr2[j]) {
            arr3[k] = arr1[i];
```

```
            i++;
            k++;
        }
```

```
    else {
        arr3[k] = arr2[j];
```

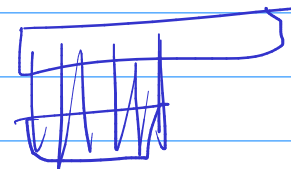
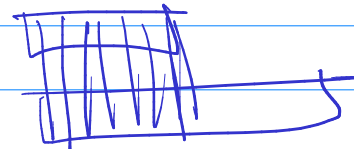
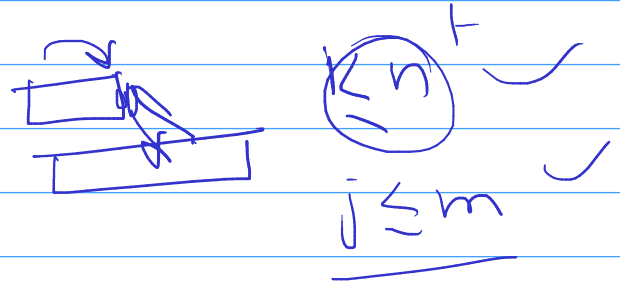
```
        j++;
        k++;
    }
```

```
}
```

~~while(i <= n)~~
~~arr[k] = arr1[i]~~
~~i++ ; k++ ;~~

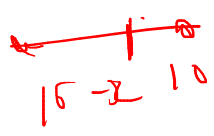
~~while(j <= m)~~

~~arr[k] = arr2[j]~~

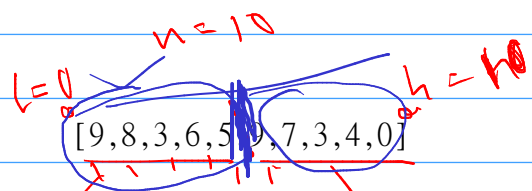


1 >

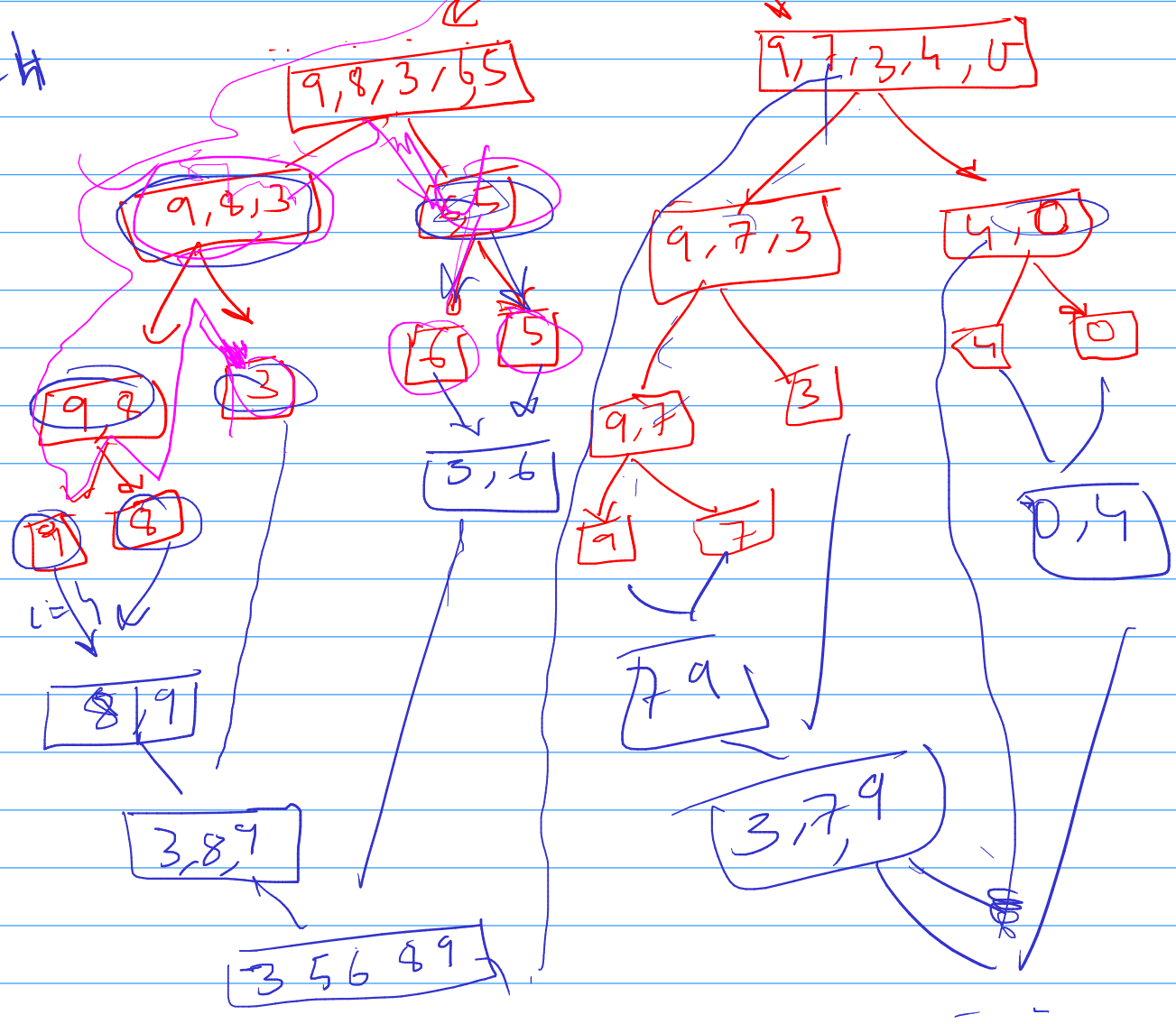
$$mid = \frac{l+h}{2} = 5$$



Merge Sort (A, l, h)



1 > l > h



```
MergeSort(arr, l, h){
```

```
}
```

QuickSort

