

$[0, 3, 5]$   $C$   $[2, 4, 7, 9, 11, 14]$   $(9)$   $[2, 2, 3, 4, 5, 7, 9, 11, 14]$

```

public static Array<Integer> mergeSort(Array<Integer> a1, Array<Integer> a2)
{
    int n = a1.length;
    Array<Integer> arr = new Array<Integer>(n);
    while(n > 1)
    {
        int i = 0;
        while(i < n)
        {
            int p1 = i;
            int p2 = i + n/2;
            int p3 = i + n;
            mergeSort(arr, a1, p1, p2, p3);
            i = i + n/2;
        }
        n = n/2;
    }
    return arr;
}

```

arr.add(3, 0)