Search in bitonic array

public class MyClass {

public static void main(String args[])

{

int[] arr={2,3,8,9,14,17,15,12};

int x=PeakElement(arr);

System.out.println(BS(arr,0,x-1);

System.out.println(BS(arr,x,arr.length-1);

}

public static int PeakElement(int[] arr)

{

int start=0;

int end=arr.length-1;

while(start<=end)

{

int mid=start + (end-start)/2;

if(mid>0 && mid<arr.length-1)

{

if(arr[mid-1]>arr[mid] && arr[mid]>arr[mid+1])

{

return mid;

}

else if(arr[mid-1]>arr[mid])

{

end=mid-1;

}

else

{

start=mid+1;

}

}

else if(start==0)

{

if(arr[0]>arr[1])

{

return 0;

}

else

{

return 1;

}

}

else if(end==arr.length-1)

{

if(arr[arr.length-1]>arr[arr.length-2])

{

return arr.length-1;

}

else

{

return arr.length-2;

}

}

}

return -1;

}

}