class Main {

public static void main(String[] args) {

int[]nums={1,2,3,8,9,10,19,20};

int target=21;

int left=0;

int index=-1;

int right=nums.length-1;

while(left<=right){

int mid=(left+right)/2;

if(target>nums[mid]){

left=mid+1;

}

else if(target<nums[mid]){

right=mid-1;

}else{

index=mid;

break;

}

}

System.out.println(index==-1?"element not found":"element is found at index:"+index);

}

}