```java
//iterative
public class binsearch
{
    public static void main(String args[])
    {
        int n=100;
        int a[]=new int[n];

        for(int i=0;i<n;i++)
        {
            a[i]=i+1;
            System.out.print(a[i]+" ");
        }
        int q=50;

        System.out.println();
        int counter=0;

        int lb=0;
        int ub=n-1;
        int m;
        boolean flag=false;

        final long startTime = System.nanoTime();

        while(lb<=ub)
        {
            counter+=1;
            m=(lb+ub)/2;counter+=1;
            if(q>a[m])
            {
                counter+=1;
                lb=m+1;counter+=1;
            }
            else if(q<a[m])
            {
                counter+=1;
                ub=m-1;counter+=1;
            }
            if(a[m]==q)
            {
                counter+=1;
                flag=true;counter+=2;
                break;
            }
        }
        counter+=1;

        if(flag==true)
        {
            counter+=1;
            System.out.println("Element found");counter+=1;
        }
        else
        {
            counter+=1;
            System.out.println("Element not found");counter+=1;
        }
        final long duration = System.nanoTime() - startTime;

        System.out.println("Count="+counter);
        System.out.println("Duration="+duration+" ns");
    }
}
```