/*Q.1) Accept 10 number in an array. Display all even number at the beginning and all Odd at the end. Use only one loop */

```
import java.util.Scanner;
public class SET2Q1{
   public static void main(String[] args) {
      System.out.println("enter 10 numbers");
      Scanner sc = new Scanner(System.in);
      int[] arr = new int[10];
      int[] result = new int[10];
      int left = 0;
      int right = arr.length-1;
      for (int i = 0; i < 10; i++) {
         arr[i] = sc.nextInt();

         if (arr[i] % 2 == 0) {
            result[left++] = arr[i];
         } else {
            result[right--] = arr[i];
         }
      }
      for (int i = 0; i < 10; i++) {
         System.out.print(result[i] + " ");
      }
   }
}
```

```
/*Q.2) Accept 5 number in an array and sort it. Accept a number from user and check if it is
there in an array or not use binary search. */
import java.util.*;
public class SET2Q2 {
   public static void main(String[] args) {
      int arr[]=new int[5];
      Scanner sc=new Scanner(System.in);
      System.out.println("enter 5  numbers:");
      for (int i=0;i<5;i++){
         arr[i]=sc.nextInt();
      }
      Arrays.sort(arr);

      System.out.println("Enter a number to search");
      int num = sc.nextInt();
      int low = 0;
      int high = arr.length - 1;
      boolean found = false;

      while (low <= high) {
         int mid = (low + high) / 2;

         if (arr[mid] == num) {

            found = true;
            break;
```

```
            }
            else if (num < arr[mid]) {
                high = mid - 1;
            }
            else {
                low = mid + 1;
            }
        }

        if (found) {
            System.out.println("Element  found");
        }
        else{
            System.out.println("not found");
        }

    }

}
```