

- 1) Segregate positive and negative integers in linear time Given an array of positive and negative integers, . The output should print all negative numbers, followed by all positive numbers. For example, Input: [19, -13, 15, -12, -18, -16, 1, 3] Output: [-13, -12, -18, -16, 15, 19, 1, 3]

```
package mypack;

import java.util.Arrays;

public class ThirdTest {

    public static void main(String[] args) {

        int[] arr = {19, -13, 15, -12, -18, -16, 1, 3};

        int left = 0;
        int right = arr.length - 1;

        while (left <= right)
        {
            if (arr[left] < 0)
            {
                left++;
            }
            else if (arr[right] > 0)
            {
                right--;
            }
            else

```

```
    {
        int temp = arr[left];
        arr[left] = arr[right];
        arr[right] = temp;
    }
}

System.out.println("after segerating output is: ");

for (int i : arr) {
    System.out.print(i + " ");
}

int[] newArr = new int[arr.length-1];
for (int i = 0; i < arr.length-1; i++) {
    newArr[i] = arr[i];
}

Arrays.sort(newArr);

System.out.println("new sorted:");

for(int i: newArr)
{
    System.out.print(i);
}
}
```

- 2) Accept 5 number in an array, accept a number from user and check if given number is there in an array or not

```
package mypack;
```

```
import java.util.Scanner;
```

```
public class ThirdTest {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter 5 numbers:");
```

```
        int arr[] = new int[5];
```

```
        for (int i = 0; i < arr.length; i++) {
```

```
            arr[i] = sc.nextInt();
```

```
        }
```

```
        System.out.println("Enter a number to search:");
```

```
        int num = sc.nextInt();
```

```
        boolean found = false;
```

```
        for (int i = 0; i < arr.length; i++)
```

```
        {
```

```
            if (arr[i] == num)
```

```
{  
    found = true;  
    break;  
}  
}  
  
if (found)  
{  
    System.out.println("Element is found");  
}  
else  
{  
    System.out.println("Element is not found");  
}  
}  
}
```