

Exercise 1: find the max element in an array

23	65	12	87	12	343	098	12	76	312
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Input:**1. Pre-Condition:**

Int a[] = {23,65,12,87,12,343,098,12,76,312} - I give input set values in an array

2. Post-Condition:

Initialize value – int max = a[0];

3. Loop variant:

Using for loop – for(i=0;i<max.length;i++)

4. Loop invariant:

Condition check - If(a[i]>max)

Max=a[i]

Pseudocode:

Class Maximumvalue

int a[10] = {23,65,12,87,12,343,98,12,76,312};

int max = a[0];

for (i = 0; i < max.length; i++)

if(a[i]>max)

max = a[i];

Return max;

Exercise 2: Move zeroes to the end of Array**Pre-Condition:**

Using array variable - Int arr[].count=0;

Loop variant:

For(i=0;i<arr.length;i++) initialize i=0; condition i<arr.length, Increment i++

Loop invariant:

Using array index (if condition)

If(arr[i]>0)

Arr[count++]=a[i]

Using while loop (count<arr.length)

Arr[count++]

Pseudocode:

```
Int arr[].count=0;
```

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

```
  If(arr[i]>0)
```

```
    Arr[count++]=a[i]
```

```
  while (count<arr.length)
```

```
    Arr[count++]
```