SUMMARY: LAB_4

`int[] integerArray = new int[n]` – array with n integers

Index:	0	1	2	3	4	…	n-1
Element:	a_1	a_2	a_3	a_4	a_5	…	a_n

A

Index	0	1	2	3	4	5	6	7	8
value	3	10	−4	12	24	2	0	0	5

int max = 3;			
1	max = 3	$max < 10$	max = 10
2	max = 10	max < −4	–
3	max = 10	max < 12	max = 12
4	max = 12	max < 24	max = 24
5	max = 24	max < 2	–
6	max = 24	max < 0	–
7	max = 24	max < 0	–
8	max = 24	max < 5	–
return max (max = 24)			

Sum of elements in array: A = {9,11,20,21}

index	temp_sum	temp_sum+A[index]	temp_sum
0	0	0+9	9
1	9	9+11	20
2	20	20+20	40
3	40	40+21	61

The complete syntax for defining a Java method is:

```
modifier static returnType nameOfMethod (Parameter List)
{ // method body }
```

- **modifier** - defines access type whether the method is public, private and so on.
- **static** - If you use static keyword in a method then it becomes a static method. Static methods can be called without creating an instance of a class.For example, the sqrt() method Math.sqrt().
- **returnType** - A method can return a value. (exmpl:int, float, double etc.), native objects (String, Map, List etc.), or any other built-in and user defined objects.
- **nameOfMethod** - The name of the method is an identifier.
- **Parameters (arguments)** - Parameters are the values passed to a method. You can pass any number of arguments to a method.
- **Method body** - It defines what the method actually does, how the parameters are manipulated with programming