**Test on: Arrays (Level 1 – 3) & Methods & Grade 11 review topics**

**Test Preparation:**

**Test Date:**

* **Written on Wednesday Sept 21 (13)**
* **On Computer Sept 29**

**Topics:**

1. All grade 11 programming concepts and skills that were learnt.
2. Algorithms,
3. Methods
4. Strings
5. Arrays including sorting
6. Level 1 – level 3 Array exercise concepts and skills
7. Problem-solving

Part A: For the following programming terms, compare and contrast them: Provide key similarities and differences between the two terms.

1. Void type and return type: /4

Similarities: They both are methods. They help us to divide the programs into smaller more manageable parts. They help us to debug faster, organize our programs, to divide the task between many programmers. They both can be called by the main method and by other methods. Both can have many parameters that can be passed to and from the methods.

Differences: The return type method returns a value to the main method, thus the value returned should either be outputted or stored in a variable. Thus the method signature (header will have a return type). The void type doesn’t return a value but it just executes many commands (tasks).

1. Pass by value and pass by reference

Similarities: They both are associated with methods, in particular as to how we pass values (arguments) to a method. Both return and void type methods can have arguments that are either pass by value or pass by reference or both.

Differences:

Pass by reference will affect the variable that is passed while pass by value does not affect the original value that is stored in the main method.

1. String type and array type variables