- 1. Java Development Kit, Java Runtime Environment is made up of a Java virtual Machine. A JRE is also part of Java Development kit.
- 2. Java compiler is a compiler for programming language Java.
- 3. In Java, programs are compiled into byte code and that byte code is platform-independent. Any machine to execute the byte code needs the Java Virtual Machine.
- 4. Integrated Development Environment (IDE) is a software for building application that combines common developer tools into a single graphical user interface. It is very important for developers because it helps enable programmers to consolidate the different aspects of writing a computer program. IDEs increase programmer productivity by combining common activities of writing software into a single application: editing source code, building executables, and debugging.
- 5. Yes, Java is case sensitive.
- 6. static: sharing the static members across the classes only. Static members are not associated with instances, but with classes.

final: the value won't be able to change in the future after the first time defined. public: can be access outside of any classes.

void: there is no return value back from void type methods.

null: it means it is nothing or empty got returned.

package: is a folder directory path in the computer. A package is a namespace that organizes a set of related classes and interfaces. Packages is similar to different folders on the computer.

Class: is a template used to create objects and to define object data types and methods. Classes are categories, and objects are items within each category. All class objects should have the basic class properties

new: used to initial the new object and allocates the memory. It is also used for initial new arrays and arrays of objects.

- 7. Primitive types are the basic types of data: byte, short, int, long, float, double, boolean, char
 - Reference types are any instantiable class as well as arrays: String, Scanner, Random, Die, int[], String[], etc...
- 8. Java pass primitive type with value. However, when the method pass in reference type, it will be passed as reference.
- 9. System.out.println(1 > 0 ? "A":"B"); should print out "A"
- 10. use final int A = 10; to define the constants
- 11. String is a reference type in java. String is a sequence of characters.
- 12. We can use java build in methods

Integer.parseInt(String); Float.parseFloat(String); Double.parseDouble(String); Long.parseLong(String);

Also we can use the Apache StringUtils.isNumeric(String); or we can use the NumberUtils.isCreatable(String);

- 13. Write the program for activity. code will be show in Assignment1.iava
- 14. Write the program to merge 2 arrays in Assignment1.java
- 15. Write the program to find second largest number inside an array of int in Assignment1.java