Part A

Question A.1

(a) Here's an example of code for a double variable and a double literal:

```
double d1 = new Double(20.5);
System.out.println(32.0);
System.out.println(d1);
```

In this case the double literal is the 20.5 that is passed as an argument to the .println() method. This double literal is a fixed, constant value. On the other hand d1 is a double variable is a storage location which can hold different values at different times. So when .prinln(d1) is called the method takes the value of the variable and passes it as an argument. The difference is that the double variable is changeable while the double literal is not.

(b) int n is the declaration of a variable of integer type with name n. This variable is taking the value of Integer.parseInt(args[0]);
The Integer part is the class which is called by the program (we call this class because our variable is of the int type) and .parseInt is a method provided by the Integer class that coverts the argument of the method to an int type by parsing the string argument as a signed decimal integer. While args[0] is the first entry of the command-line arguments which are hold as an array of String objects. In this case, the first string object in the array (index = 0) is passed as an argument to the .parseInt() method to be converted to an integer and to be assigned as the value of the variable n.

(c) double d = Double.parseDouble(args[0]);

Question A.2

(a) (1) No
(2) Yes
(3) No
(4) Yes
(5) No
(6) No
(7) No

(b) ".*p[^er]+[^r].*"

Question A.3

(a) Insert() – O(1)

(b) isFull() – O(1)
(c) size() – O(1)
(d) contains() – O(N)
(e) clear() – O(N)
(f) getName() – O(1)
(g) toString() – O(N)