

## CSE 8B - Week 2 Discussion Worksheet

### Week2.java - File, Scanner, PrintWriter

```
1 /**
2  * Filename: Week2.java
3  * Name: _____
4  * Login: _____
5  * Date: January 15, 2020
6  * Sources of Help: Given
7  *
8  * A file that is used for week 2 discussion. It covers IO in Java.
9  */
10
11 import java.io.*;
12 import java.util.*;
13
14 /**
15  * The Week2 class is used to explain useful file operations in PA2.
16  */
17 public class Week2 {
18     private static final String INPUT_FILE_NAME = "input.txt";
19     private static final String OUTPUT_FILE_NAME = "output.txt";
20
21     /**
22      * Main method used to copy contents of input file to output file.
23      * This method will not check to ensure that input file exists.
24      *
25      * @param args      Not used
26      * @throws IOException Can occur when reading and writing
27      */
28     public static void main(String[] args) throws IOException {
29         // Open up the input file and create Scanner to parse the file
30         File inputFile = new File(_____);
31         Scanner scanner = new Scanner(_____);
32
33         // Open up the output file and create PrintWriter to write it
34         File outputFile = new File(_____);
35         PrintWriter printer = new PrintWriter(_____);
36
37         // Read through the file
38         String line = "";
39         while(_____) {
40             // Read in one line and write to output file
41             line = _____;
42             _____;
43         }
44
45         scanner.close();
46         printer.close();
47     }
48 }
```

## WeekTwoRecursive.java - Recursion practice

```
1 public class Week2Recursive {
2     public static void main(String[] args) {
3         System.out.println(replaceA("ahao"));
4         multTwoThree(new int[] {1, 2, 3, 4, 5}, 0);
5     }
6
7     /**
8      * Replace "ah" with "(AH)", 'a' with "[sad_A]", else keep letter
9      */
10    protected static String replaceA(String str) {
11        // Base case
12        if(_____) {
13            return str; // Same as return "";
14        }
15
16        // Check if the current character is 'a'
17        if(_____) {
18            // Check for next character whether it forms 'ah'
19            if(_____) {
20                return "(AH)" + _____;
21            } else {
22                return "[sad_A]" + _____;
23            }
24        } else { // Else return the current letter
25            return str.charAt(0) + _____;
26        }
27    }
28
29    /**
30     * Prints the value * 2 of each number in the list's order
31     * Then prints the value * 3 of each number in reverse order
32     */
33    protected static void multTwoThree(int[] numbers, int index) {
34        // Base case
35        if(_____) {
36            return;
37        }
38
39        // Print the value * 2
40        System.out.println(_____);
41
42        // Recursive call
43        _____;
44
45        // Print the value * 3
46        System.out.println(_____);
47    }
48 }
```