

## CS121 Quiz 2

November 3, 2005

Name: \_\_\_\_\_

1. Is the following code a valid Java program? If not, what is the problem? [10 points]

```
public class Test1 {
    public static void main(String[] args) {
        int x = 0;
        if (x == 0) {
            int x = 1;
            System.out.println(x);
        }
    }
}
```

2. What will be printed by the following program? [10 points]

```
public class Test2 {
    public static void main(String[] args) {
        int x = 1;
        switch (x) {
            case 0:
                System.out.println(x);
            case 1:
                System.out.println(x);
            case 2:
                System.out.println(x);
            default:
                System.out.println(x);
        }
    }
}
```

3. What is the function of the following program? [20 points]

```
public class Test3 {
    public static void main(String[] args) {
        if (args.length == 0)
            System.exit(-1);
        int left = 0, right = args.length - 1;
        while (left < right) {
            String temp = args[left];
```

```

        args[left] = args[right];
        args[right] = temp;
        left++;
        right--;
    }
    for (int i = 0; i < args.length; i++)
        System.out.print(args[i] + " ");
    }
}

```

4. What is the relationship between the values in array a1[] and the values in array a2[][]? [20 points]

```

public class Test4 {
    public static void main(String[] args) {
        int[][] a2 = new int[4][4];
        for (int i = 0; i < a2.length; i++)
            for (int j = 0; j < a2[0].length; j++)
                a2[i][j] = i + j;
        int[] a1 = new int[a2[0].length];
        for (int i = 0; i < a2[0].length; i++) {
            a1[i] = 0;
            for (int j = 0; j < a2.length; j++)
                a1[i] = a1[i] + a2[j][i];
        }
        for (int i = 0; i < a1.length; i++)
            System.out.print(a1[i] + " ");
    }
}

```

5. Write a concise and well-formatted Java program that [40 points]
- Creates an array holding integer values { 2, 4, 6, 8, 10, 12, 15, 18, 25, 31};
  - Prompts the user to enter an integer for looking up (input should not be from a command-line argument);
  - Uses a loop to implement sequential search of the input integer in the integer array created in step (a). If the input integer is not in the array, print -1. Otherwise print the index value for that value in the array.