

Assignment 4

Deadline : 02/ 23/ 2018 24:00

1. Find the error in the following code and explain in few lines why it is wrong. (Score 1)

Here is the code.

```
public class Book{
    int size;
    int price;
    String name;

    public Book(int size){
        this.size = size;
    }

    public Book(int size, int price, String name){
        super();
        this.size = size;
        this.price = price;
        this.name = name;
    }

    public Book(int price){
        this.price = price;
    }

    public setName(String name){
        return name;
    }
}
```

2. Find the error in the following code and explain in few lines why it is wrong. (Score 1)

Here is the code.

```
class Clock{
    String time;

    void getTime(){
        return time;
    }

    void setTime(String t){
        time = t ;
    }
}
```

...

3. (scores 2)

1)What will be the output of the following program?

```
enum Levels
{
    TOP, MEDIEUM(10), BOTTOM(20, 30);

    int i, j;

    private Levels()
    {

    }

    private Levels(int i)
    {
        this.i = i;
    }

    private Levels(int i, int j)
    {
        this.i = i;

        this.j = j;
    }
}

public class MainClass
{
    public static void main(String[] args)
    {
        System.out.println(Levels.TOP.i);

        System.out.println(Levels.TOP.j);

        System.out.println(Levels.MEDIEUM.i);

        System.out.println(Levels.MEDIEUM.j);

        System.out.println(Levels.BOTTOM.i);

        System.out.println(Levels.BOTTOM.j);
    }
}
```

2)Can you find out the error in the below code?

```
enum Enums
{
    ONE, TWO, THREE, ONE, FOUR;
}
```

4.Given a string containing just the characters '(', ')', '{', '}', '[', and ']', determine if the input string is valid. (2 scores)

The brackets must close in the correct order, "()" and "()[]{}" are all valid but "()" and "([)]" are not.

There is the prototype you can work with. Please remember to write the whole class including main function .

```
class Solution {
    public boolean isValid(String s) {

    }
}
```

5. Create a calculator that can perform the following features. (Total Score 4)

- i. The calculator should be able to perform Addition, subtraction, multiplication, division. (Score 2)
- ii. Should be able to perform squareRoot, square, cube. (Score 1)
- iii. Should be able to convert 'Fahrenheit-Celsius' , 'Feet-Inches'. (Score 1)

Extra credit

In a string composed of 'L', 'R', and 'X' characters, like "RXXLRXXRL", a move consists of either replacing one occurrence of "XL" with "LX", or replacing one occurrence of "RX" with "XR". Given the starting string `start` and the ending string `end`, return `True` if and only if there exists a sequence of moves to transform one string to the other.(2 scores)

Example:

Input: `start = "RXXLRXXRL", end = "XRLXXRRLX"`

Output: `True`

Explanation:

We can transform `start` to `end` following these steps:

RXXLRXXRL ->

XRXLRRXL ->

XRLRXXRL ->

XRLXXRRXL ->

XRLXXRRLX