# CS101 Quiz 2 Solution

## Name:

a) Write a method in the space provided below named as **reverse**. This method will be used in the following context to reverse the given input.

```
public static void main(String[] args)
{
    Scanner in = new Scanner(System.in);
    System.out.print("Enter the String to reverse: ");
    String str = in.nextLine();
    System.out.println();
    System.out.println("Reversed String: "+reverse(str));
    System.out.println();
}
```

**Sample Run**

```
Enter the String to reverse: test1

Reversed String: 1tset
```

```
public static String reverse (String str)
{
    String result = "";
    for (int i=str.length()-1; i>=0; i--)
        result = result + str.charAt(i);
    return result;
}
```

b) What is output generated by the following code when called from main? Show your work!

```
public static void partB()
{
    int total = 0;
    for(int i= 1; i<= 6; i++)
    {
        for(int j = 1; j <= i; j++)
        {
            total += i;
        }
    }
    System.out.println (total);
}
```

**Answer: 91**

c) Write a method in the space provided below named as **partC** that displays a pattern as below

```
....1
...2.
..3..
.4...
5....
```

```
public static void main(String[] args)
{
     Scanner in = new Scanner(System.in);
     System.out.print("Enter the number of lines to display: ");
     int number = in.nextInt();
     partC(number);
}
```

**Sample Runs**

```
Enter the number of
lines to display: 6
.....1
....2.
...3..
..4...
.5....
6.....
```

```
Enter the number of
lines to display: 9
........1
.......2.
......3..
.....4...
....5....
...6.....
..7......
.8.......
9........
```

```java
public static void partC (int value)
{
     for(int line = 1; line <= value; line++)
     {
          for(int j = 1; j <= -1 * line + value; j++)
          {
               System.out.print(".");
          }
          System.out.print(line);
          for (int j = 1; j <= line -1; j++)
          {
               System.out.print(".");
          }
          System.out.println();
     }
}
```