

CS 102: Quiz #3, September 23, 2009

Name: _____

1. Write a method

```
public static String multiConcat(String s, int n)
```

which returns a new string which is equal to n copies s concatenated together. For example if the string passed into s is "hi", and the integer passed into n is 4, then the return value is "hihihihi". If $n \leq 1$, simply return s .

Solution:

```
public static String multiConcat(String s, int n){
    String ret = s;
    for (int i=2; i<=n; i++)
        ret += s;
    return ret;
}
```

2. What is the output of the following driver class? You may refer to the classes `Rectangle` and `Square` on the following page (these are the same as we have discussed in class).

```
public class SquareDriver{
    public static void main (String[] args){
        Square s = new Square (7);
        System.out.println(s.getLength() + "\n" + s.area()
                            + "\n" + s.getSide());
    }
}
```

Solution:

```
7.0
49.0
7.0
```

```
public class Rectangle{
    protected double length, width;
    public Rectangle(double len, double wid){
        length = len;
        width = wid;
    }
    public double perimeter(){
        return 2*length + 2*width;
    }
    public double area(){
        return length*width;
    }
    public double getLength(){
        return length;
    }
    public double getWidth(){
        return width;
    }
}
```

```
public class Square extends Rectangle{
    public Square(double s){
        super (s,s);
    }
    public double getSide(){
        return length;
    }
}
```