

CS101: Quiz #10, April 22, 2009
SOLUTIONS

1. (a) Write a method called `average` that accepts two integer parameters and returns their average as a floating point value.

Solution:

```
public static double average(int m, int n){  
    return (double) (m+n)/2;  
}
```

- (b) Overload the `average` method above so that if three integers are provided as parameters, the method returns the average of all three.

Solution:

```
public static double average(int m, int n, int p){  
    return (double) (m+n+p)/3;  
}
```

QUESTION 2 IS ON THE BACK

2. What is the output of the following driver class, which uses the Num class below?

```
public class Problem2{
    public static void main (String[] args){
        int p = 5, q = 6;
        Num a = new Num(13), b = new Num(20);
        System.out.println(p + " " + q + " " + a + " " + b);
        switchValues(p,q);
        switchValues(a,b);
        System.out.println(p + " " + q + " " + a + " " + b);
    }
    public static void switchValues (int m, int n){
        int temp = m;
        m = n;
        n = temp;
    }
    public static void switchValues (Num x, Num y){
        int xValue = x.getValue();
        x.setValue(y.getValue());
        y.setValue(xValue);
    }
}

public class Num{
    private int value;
    public Num (int update){ value = update; }
    public void setValue (int update){ value = update; }
    public int getValue(){ return value; }
    public String toString(){ return value + ""; }
}
```

Solution:

```
5 6 13 20
5 6 20 13
```