Software Design I (CS 120)
Quiz 07: Monday, 06 November 2017

NAME _____

(1) (*7 points*) Below, there is code for a complete Java class. This class contains a number of methods and variables. In the table at the bottom of the page, indicate where each **variable is available for use**. For instance, if the variable identifier is recognized inside the `main()` method only, then you would check the box in the `main()` column, and leave the others blank. If a variable can be used by two methods, then check the boxes for both of those methods.

For the column labeled ***Outside***, you should only check boxes on variables that are accessible to ***other classes*** besides `Driver` itself (that is, we check the box if and only if we can access these variables directly by name after creating a `Driver` instance).

Please note: I am *not* asking whether or not the variable is *actually used* in the given scope; you should check all boxes corresponding to scopes in which that variable *could be* accessed, if desired.

```
public class Driver
{
    private double dub1;
    public double dub2;

    public Driver()
    {
        int i = (int) dub1;
    }

    public int integerRoot( int n )
    {
        double dub3 = Math.sqrt( n );
        return (int)( dub3 );
    }

    private void printTimes( String str, int count )
    {
        while ( int count > 0 )
        {
            System.out.println( str );
            count--;
        }
    }
}
```

Identifier	`Driver()`	`integerRoot()`	`printTimes()`	***Outside***
`double dub1`				
`double dub2`				
`double dub3`				
`int i`				
`int n`				
`int count`				
`String str`				

(2) (*3 pts.*) Give the values of the three integer variables obtained by calling the method below. Assume the code to call the method is part of the same class as the method.

```
private int aba( int a, int b )
{
    int div = a / 2;
    return b + div;
}
```

(a) `int b1 = aba( 10, 8 );` _____

(b) `int b2 = aba( 8, 10 );` _____

(c) `int b3 = aba( 9, 10 );` _____

(3) (*5 pts.*) Write a method below that takes in an integer as input and returns a `boolean` value. The return value should be `true` if the input is an odd number that is between 1 and 10, inclusive, and `false` otherwise. Thus, running your method on inputs ($x \leq 0$) or ($x \geq 11$) would produce output `false`; running your method on inputs strictly between those limits would produce `true` for the odd numbers, and `false` for the even ones.