

Software Design I (CS 120)
Quiz 07: Tuesday, 08 November 2016

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 a variable can be used 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.

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 static void main( String[] args )
    {
        double dub2 = 3.6;
    }

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

    public int integerPower( int n, int m )
    {
        double dub3 = Math.pow( n, m );
        return (int)( dub3 );
    }

    private void print( String str )
    {
        System.out.println( str );
    }
}
```

Identifier	main()	Driver()	integerPower()	print()
double dub1				
double dub2				
double dub3				
int i				
int n				
int m				
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 i, int j )
{
    int a = i / 2;
    return j - a;
}
```

(a) `int b1 = aba(9, 4);` _____

(b) `int b2 = aba(9, 5);` _____

(c) `int b3 = aba(10, 4);` _____

- (3) (5 pts.) Write a method below that takes in an integer as input and returns a **boolean** value. That value should be **true** if the input is **both** non-negative **and** evenly divisible by 5 (e.g., 0, 5, 10, etc.), and **false** otherwise.
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