

AP CS Homework: Parameters, Loops, & Math methods

1. Parameter mystery. Write what is output by the following code:

```
public class MysteryNums {
    public static void main(String[] args) {
        int x = 15;
        sentence(x, 42);

        int y = x - 7;
        sentence(y, x + y);
    }

    public static void sentence(int num1, int num2) {
        System.out.println(num1 + " " + num2);
    }
}

15 42
8 23
```

2. Find the error. The following program has 9 errors. Circle them all and fix as appropriate.

```
public class Parameters {
    public static final type z = 5;
    public static void main(String[] args) {

        double bubble = 867.5309;

        double x = 10.01;

        printer(double x, double bubble);

        printer(x,y);

        //printer("barack", "obama");

        System.out.println("z = " + z);
    }

    public static void printer(double x, double y) {

        int z = 5;

        System.out.println("x = " + double x + " and y = " + y);

        System.out.println("The value from main is: " + bubble z);
    }
}
```

3. Expressions. Write the results of each of the following expressions. Make sure to use the proper type (.0 for a double, "" for a String).

Math.ceil(9.17) 10.0
Math.pow(2, 4) 16.0
Math.sqrt(64) 8.0
Math.floor(12.73) + Math.max(8, 5) 20.0
Math.abs(Math.min(-1, -3)) 3

4. Loop review. What output is produced by the following program?

```
public class OddStuff {
    public static void main(String[] args) {
        int number = 32;
        for (int count = 1; count <= number; count++) {
            System.out.println(number);
            number = number / 2;
        }
    }
}
```

32
16
8
4

5. Loop review. Write some nested for loops to produce the following output:

```
000111222333444555666777888999
000111222333444555666777888999
000111222333444555666777888999
```

```
public class PracticeParaQuiz {
    public static void main(String[] args) {
        for (int i = 1; i <=3; i++){
            for (int j = 0; j <= 9; j++){
                System.out.print(" " + j + j + j);
            }
            System.out.println();
        }
    }
}
```

6. Hard parameter mystery. Write what is output by the following code:

```
public class MysterySoda {
    public static void main(String[] args) {
        String soda = "coke";
        String pop = "pepsi";
        String coke = "pop";
        String pepsi = "soda";
        String say = pop;

        carbonated(coke, soda, pop);           //
        carbonated(pop, pepsi, pepsi);        //
        carbonated("pop", pop, "koolaid");    //
        carbonated(say, "say", pop);          //
    }
    public static void carbonated(String coke, String soda, String pop) {
        System.out.println("say " + soda + " not " + pop + " or " + coke);
    }
}
```

```
say coke not pepsi or pop
say soda not soda or pepsi
say pepsi not koolaid or pop
say say not pepsi or pepsi
```