

CS 18000 Practice Exercises and Method Writing Exam 1

1. Write a method named **Max** that returns an int. Use a Ternary Operator that determines the maximum of two given integers **x** and **y**.

```
public static int Max( int x, int y) {  
    return ( x > y ) ? x : y;  
}
```

2. Initialize an array of integers of length 5 named **firstFive**, then define each integer with it's corresponding index position within the array. All within one line.

```
int [] firstFive = {0, 1, 2, 3, 4};
```

3. Given a String name, int age, int classYear, and double gpa, write a print statement with all variables formatted in order of classYear, name, age, and GPA rounded to 2 decimal places. (All separated by commas)

```
System.out.printf("%d, %s, %d, %.2f", classYear, name, age, gpa);
```

4. Explain the differences between a Constructor and Method in Java.

Constructors are effectively blueprints to create objects in Java, whereas methods are akin to a set of instructions for an object to complete or act upon.

5. Create a program that utilizes a **switch** statement of selection to print the name of the month given by a scanned **int month** input.

```
public static void main(String [] args) {
    Scanner scan = new Scanner(System.in);

    System.out.println("Enter a # of a month 1-12: ");
    int month = scan.nextInt();
    String monthName;

    switch (month) {
        case 1:
            monthName = "January";
            break;
        case 2:
            monthName = "February";
            break;
        case 3:
            monthName = "March";
            break;
        case 4:
            monthName = "April";
            break;
        case 5:
            monthName = "May";
            break;
        case 6:
            monthName = "June";
            break;
        case 7:
            monthName = "July";
            break;
        case 8:
            monthName = "August";
            break;
        case 9:
            monthName = "September";
            break;
        case 10:
            monthName = "October";
            break;
        case 11:
            monthName = "November";
            break;
        case 12:
            monthName = "December";
            break;
        default:
            monthName = "January";
            break;
    }
}
```