1. Select the best answer for the following questions.

(a) (1 point) Which of the following could be a valid method header for a method named `calculate`?
   A. `public static calculate(int z)`
   B. `public static void calculate(int, int)`
   C. `public static int calculate`
   D. `public static void calculate(int a)`
   E. `public static String, int calculate(int i)`

(b) (1 point) Which of the following return statements could complete the method below?
    ```java
    public static int convert(int i, String s) {
        //return statement here
    }
    ```
    A. `return;`
    B. `return i+6;`
    C. `return i/2.0;`
    D. `return s;`
    E. `return i, s;`

2. (4 points) Evaluate the following boolean expressions given the variables below. If the expression would generate an error, you may simply write “error” for the result.

```java
int x = 6;
int y = 4;
```

<table>
<thead>
<tr>
<th>Expression</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>x &gt; y</code></td>
<td></td>
</tr>
<tr>
<td><code>x != y+2</code></td>
<td></td>
</tr>
<tr>
<td><code>x &gt; y &gt; 2</code></td>
<td></td>
</tr>
<tr>
<td><code>x-2 == y+2</code></td>
<td></td>
</tr>
</tbody>
</table>
3. Consider the following method:

```java
public static void calculate(int a, int b) {
    int z = 0;
    if (a >= 90) {
        if (b >= 20)
            z = 1;
        else
            z = 2;
    } else if (a >= 80) {
        z = 4;
    } else {
        z = 5;
    }
    System.out.println("z is " + z);
}
```

(a) (1 point) What does the method print if the method is invoked with the call `calculate(88, 25)`?

(b) (1 point) What does the method print if it is invoked with the call `calculate(14, 0)`?

(c) (1 point) What does the method print if it is invoked with the call `calculate(95, 25)`?

4. Consider the following method:

```java
public static void mystery(int z, int y, int x) {
    System.out.println("x is " + x + ", y is " + y + " and z is " + z);
}
```

(a) (3 points) What is the output given the following variables and method call?
```
int x = 6;
int y = 9;
int z = 14;
mystery(y, z, x);
```

(b) (3 points) Using values, write a call to the `mystery` method which would generate the output:
```
x is 8, y is 1 and z is 4
```