**Solve the following problems. If necessary, include code, images, or scanned drawings to support your answer. Submit your solutions as a pdf. Attach Java code files as needed.**

| Question: | 1 | 2 | 3 | 4 | 5 | Total |
|---|---|---|---|---|---|---|
| Points: | 100 | 100 | 100 | 100 | 100 | 500 |
| Score: | | | | | | |

## Week 5 Exercises

1. (100 points) Create a method called pythagorean that has two parameters a and b and returns the result of the Pythagorean Theorem using these two values. You can use the template below to show writing and calling your method by completing the TODO tags. Remember to think about appropriate data types!

```
1 public class Week6Exercise1 {
2     public static void main ( String [ ] args ) {
3       Week6Exercise1 tester = new Week6Exercise1();
4       System.out.println(tester.pythagorean(//TODO: FILL THIS IN);
5     }
6
7    //TODO: WRITE THE METHOD
8 }
```

```
pubic class week6Exercise1 {
  Public static void main(String [ ] args) {
    Week6Exercise1 tester = new Week6Exercise1();
    System.out.println(tester.pythagorean(5, 5); }

Public double Pythagorean ( double a, double b) {
  double c = Math.Sqrt((a.a) + (b.b));
    return c;
    }
}
```

2. (100 points) Are the following statements about methods TRUE or FALSE? If FALSE, describe what is false.

1. When we state inputs in a method signature, they are called parameters. When we call the method using inputs matching the signature, they are called arguments.
2. A method that when called has some "thing" doing the action must use the `static` keyword in its declaration.
3. A method can have infinite return values, but only one return statement.
4. Methods can have the same name as long as the input parameter sequence is different.
5. A method that doesn't return a value has a return type of `nothing`.

1) true

2) False, static is un neccisary for creating a method

3) False, can only return 1 value

4) True

5) False, no return type is void