

Homework Exercise 1

Due Tuesday, 9/11/2018

Please **type up** the solutions to the following questions in a text editor. Print them out and walk with them to class on Tuesday.

Put your name at the top of the text file.

I will give you the answers to them then.

These exercises will prepare you for the next quiz.

1. The **MultiLine2** class has the following instance (member) variables declared:

```
private Point3D [] points;  
  
private int numInArray; //Keeps track of the number of  
points currently in the array of points.
```

Fill in the statements for the following member method for that class that will calculate the distance between the first and last point on the line. You are allowed to use the `calcDistanceBetweenPoints` method from the `Point3D` class. The prototype for the `calcDistanceBetweenPoints` method is:

```
double calcDistanceBetweenPoints(Point3D pt)
```

```
public double calcDistanceBetweenFirstAndLast()
```

```
{
```

```
}//end calcDistanceBetweenFirstAndLast
```

2. You have a class called **NumberSet** that is designed to collect objects of the **Complex** class. Its instance variable is:

```
private ArrayList<Complex> numbers;
```

Write a member method called **sumOfNumbers** that will add up all of the **Complex** objects in the **numbers** array list and return the result of the addition which is also a **Complex** number. You will need to use the **add** method of the **Complex** class that has the following signature:

```
public Complex add(Complex);
```

The **sumOfNumbers** method header is:

```
public Complex sumOfNumbers()  
{  
    ....  
}
```