Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Class: \_\_\_\_\_\_\_\_\_\_\_\_\_

**Lesson 3: Midpoint & Distance**

\*All exercises should be opened in the editor and ran in the terminal as stated in the introduction.

**Lesson 3 Part 1:** Open the editor and then open lesson3a.hs. Look at the code and write down what you understand in the code. Run the code.

***Exercise:*** *Draw and Label the two missing midpoints of the other segments. Label appropriately as discussed in the question above.*

*Save your program as yourname\_lesson3b.hs*

*Run the program to check.*

Questions:

1. What does the program do?
2. Why did the programmer use a’ in the language?

***Exercise:*** *Manipulate the program you just created, lesson3b.hs, to draw the 3 segments connecting the midpoints.*

*Save your program as yourname\_lesson3c.hs*

*Run the program to check.*

**Notes:**

**Lesson 3 Part 2:** Open the editor and then open lesson3d.hs.

Question:

This program should look familiar to lesson3a.hs.

1. What do you think the program does differently than lesson3a.hs?

Run the program.

1. What does the function dist b c do?
2. What does the function message do?

***Exercise:*** *Open the editor and then open lesson3e.hs.*

1. *What does the program do?*

*Run the program to check.*

1. *What does the function* messages *do?*

***Lesson 3 Ending Exercises:***

***Exercise:*** *Open lesson3d.hs*

*Manipulate the program to do the following:*

1. *Draw all three midpoints of the segments.*
2. *Draw all of the segments connecting the midpoints.*
3. *Show the measure the distances of all 3 original sides.*
4. *Show the measure the distances of the 3 segments connecting the midpoints.*

*Save the program as yourname\_lesson3f.hs*

*Run the program to check*