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

**Lesson 2: Intersections**

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

**Lesson 2 Part 1:** Open the editor and then open lesson2a.hs Look at the code and write down what you understand in the code. Run the code.

Questions:

1. What does the function find\_apart

do?

1. What does the drop 3 points do?

**Lesson 2 Part 2:** Open the editor and the open lesson2b.hs. Look at the code and then run the program in the terminal

Questions:

1. What does the program do?
2. What does p represent?
3. What does the function line\_line (a,b) (c,d) used for?
4. How many points could the function line\_line (a,b) (c,d) return?

**Notes:**

**Lesson 2 Part 3:** Open lesson2c.hs. Look at the code carefully**.**

Questions:

1. What do you think intersects = line\_circle (c,d) (a,b) will compute?

Run the program and compare your answers to these questions.

1. What do the letters correspond to in drawCircle (a,b)?
2. What does (c,d) correspond to in line\_circle (c,d) (a,b)?

**Lesson 2 Part 4:** Open lesson2d.hs.

***Exercise:*** *Determine what the program will draw.*

*Run the program to check.*

***Lesson 2 Ending Exercises:***

***Exercise:*** *Open lesson2e.hs. Remove the word* undefined *to get started. Create a program to draw the following:*

1. *Circle with center a and point b on the circle.*
2. *Line AC*
3. *Label the intersection points of the circle and line as D and E.*

*Save the program as yourname\_lesson2e.hs*

*Run the program to check.*