Instructions: Complete the exercises below. Circle your answers clearly where appropriate. Make sure your homework is legible. Handwritten assignments should be scanned to a single **pdf** file (the TurboScan phone app works well for this purpose.) You may discuss strategies with classmates, but all work submitted must be your own. Work done in R may be submitted as a separate **html** file or included in the pdf as you see fit.

This assignment is due Mon, Sept. 17, at 11:59pm.

Lateness policy for this assignment:

Assignments will NOT be accepted after Tues., Sept. 18, at 11:59pm. If you do not turn in a submission by that time, you will receive a zero for the assignment. (You are allowed one assignment that is late but within 24 hours of the due date without penalty. All other late assignments will result in a deduction of 4 points, as long as they are handed in within the 24 hour window.)

#### **Problems:**

#### Section 1.2

#10

Additional Problem 1: Using the last column of data from exercise number 24:

- a. Draw a cumulative frequency histogram
- b. Draw a density histogram

Additional Problem 2: Using the following data:

Star Distance (Light Years)	Quantity
4.1 - 6	3
6.1 - 8	5
8.1 - 10	8
10.1 - 12	17
12.1 - 14	24
14.1 - 16	37
16.1 - 18	75

- a. Draw a histogram
- b. What proportion of stars is less than or equal to 10 light years away? Greater than 12 light years away?

### Section 1.3

#36abc

e. Calculate the trimmed mean by deleting the two smallest and two largest observations? What is the trim percentage? How does it compare to the original mean and median?

#41

## Section 1.4

#49

#52

#53

# Section 2.1

#6

#8

#10

## Section 2.2

#12

Additional Problem 3: In the following Venn diagram, shade (B'  $\cap$  A)  $\cup$  C  $\cup$  (A'  $\cap$  B)

