

Name: _____
Summer 2018

MAT 121
Homework 2

Problem 1: Construct a frequency distribution, relative frequency distribution, and cumulative frequency distribution table for the following data using 5 classes: Also, sketch a histogram for the

5	10	7	19	25
12	15	26	13	8
17	17	22	21	7
7	24	23	6	5

frequency distribution of the data. Describe the distribution.

Problem 2: Construct a leaf-and-stem plot of the following data:

1.1, 2.5, 3.6, 3.2, 7.1, 2.5, 2.1, 4.7, 5.0, 5.1

Problem 3: The following table is a count of voters in a local election, broken down by sex and party affiliation.

	Federalist Party	Whig Party	Free Soil Party
Male	134	265	47
Female	323	121	34

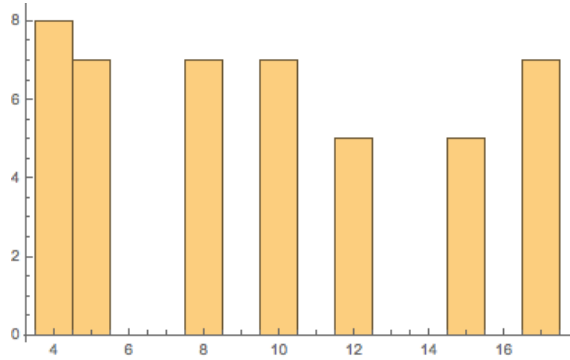
(a) How many total men voted?

(b) How many total Whig Party members voted?

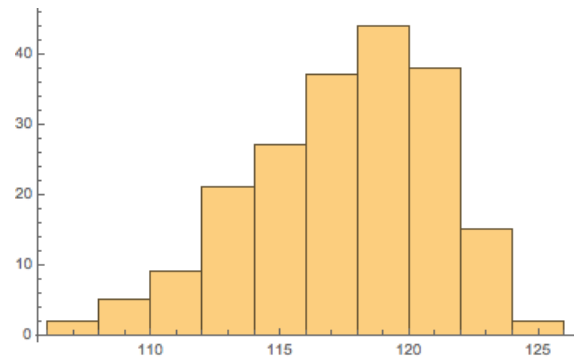
(c) How many men or Free Soil Party members voted?

(d) What percent of Federalist Party voters in this election were female?

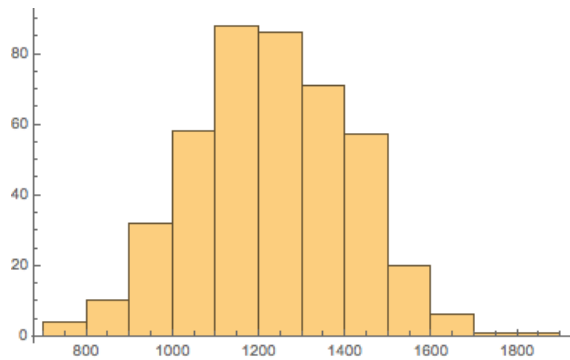
Problem 4: Determine if the following distributions are symmetric or skewed. If it is skewed, indicate whether the distribution is right skewed or left skewed.



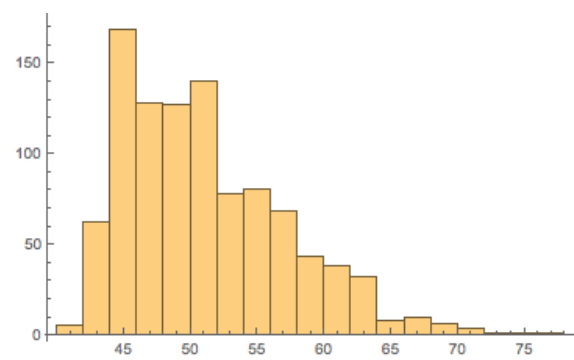
(a)



(b)



(c)



(d)

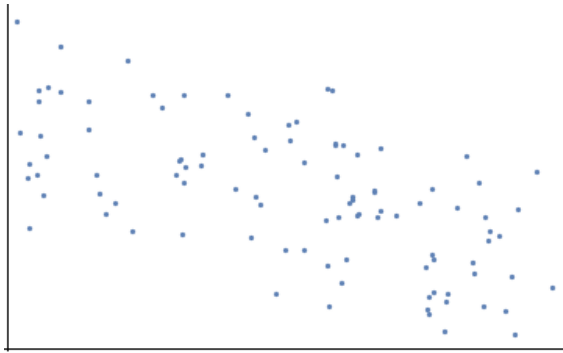
(a) _____

(b) _____

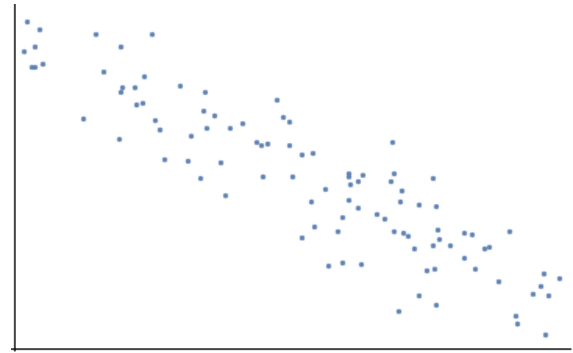
(c) _____

(d) _____

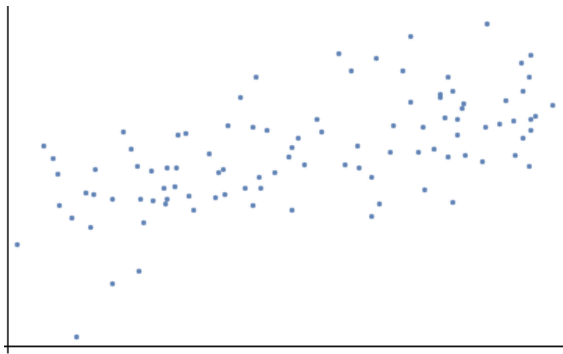
Problem 5: Match each of the following scatterplots with its regression equation and correlation coefficients. Note that the scale on each axes is the same.



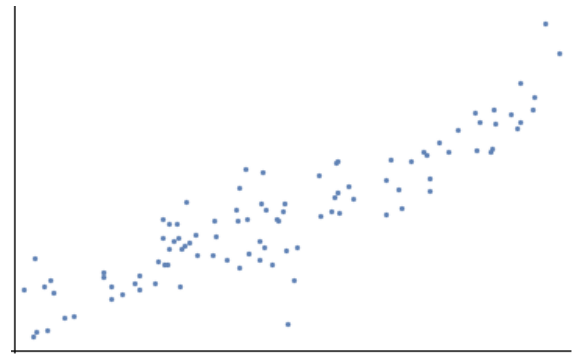
(a)



(b)



(c)



(d)

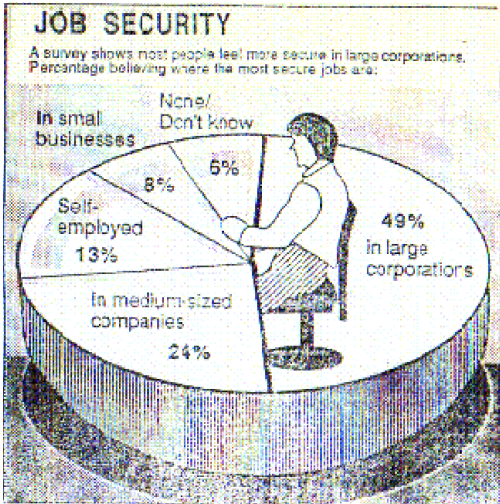
_____ : $r = 0.899, \hat{y} = 3.16\hat{x} + 4473$

_____ : $r = -0.617, \hat{y} = -11.63\hat{x} + 4285$

_____ : $r = -0.899, \hat{y} = -3.16\hat{x} + 4473$

_____ : $r = 0.617, \hat{y} = 11.63\hat{x} + 4285$

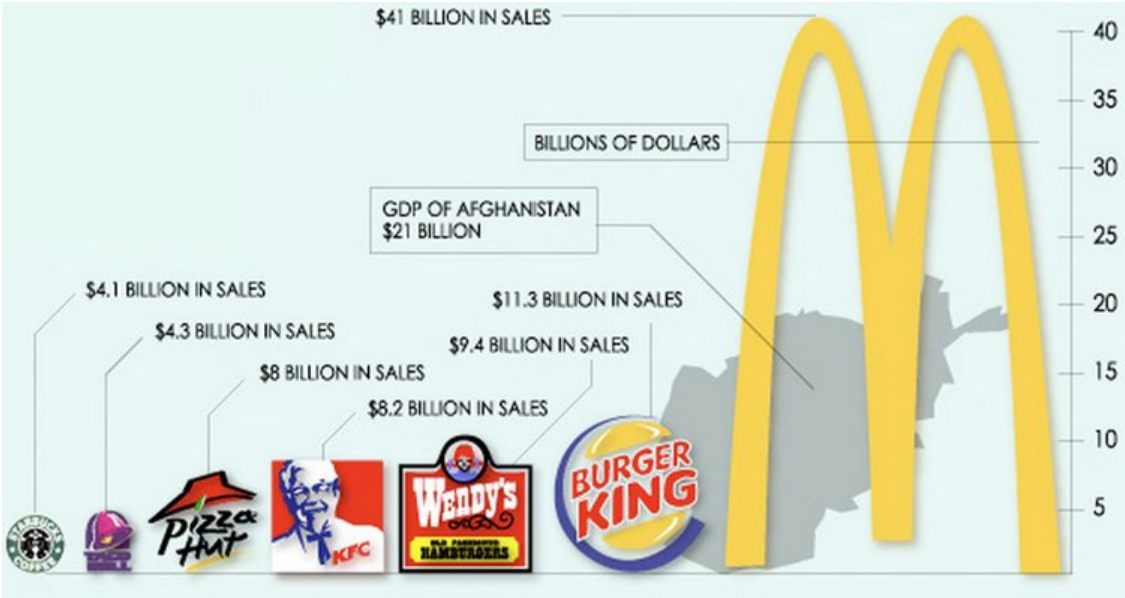
Problem 6: Identify problems in the presentation of data in the following chart. Identify how you might correct the figure.



Problem 7: Identify problems in the presentation of data in the following chart. Identify how you might correct the figure.



Problem 8: Identify problems in the presentation of data in the following chart. Identify how you might correct the figure.



W. Hickey. "The 27 Worst Charts of all Time." 06/26/2013. <http://www.businessinsider.com/the-27-worst-charts-of-all-time-2013-6>.
C.J. Schwarz. "A short tour of bad graphs." <http://people.stat.sfu.ca/~cschwarz/Stat-650/Notes/PDF/ChapterBadgraphs.pdf>