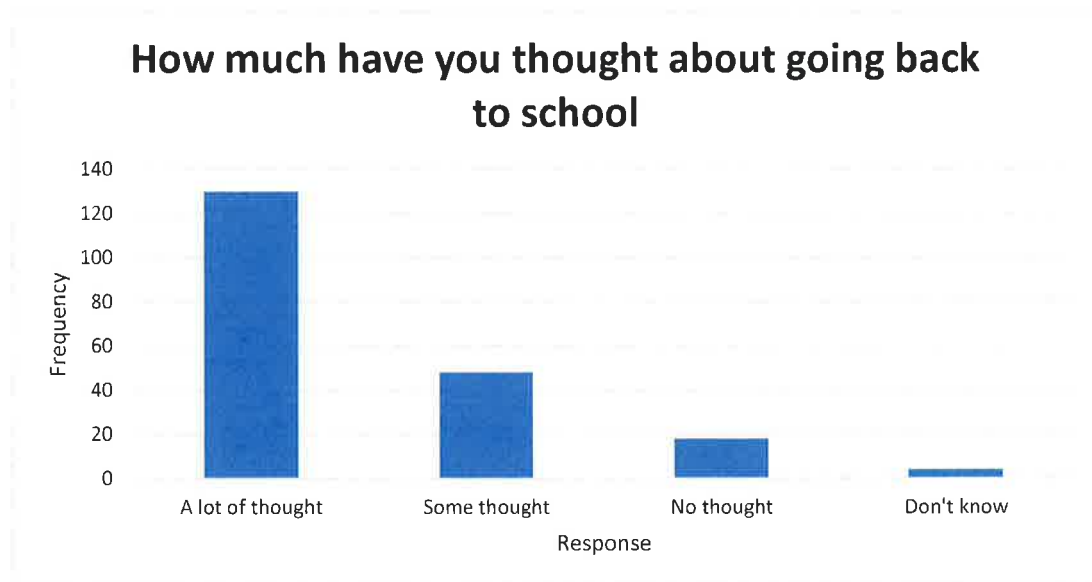


Q.1.13 (p.16)

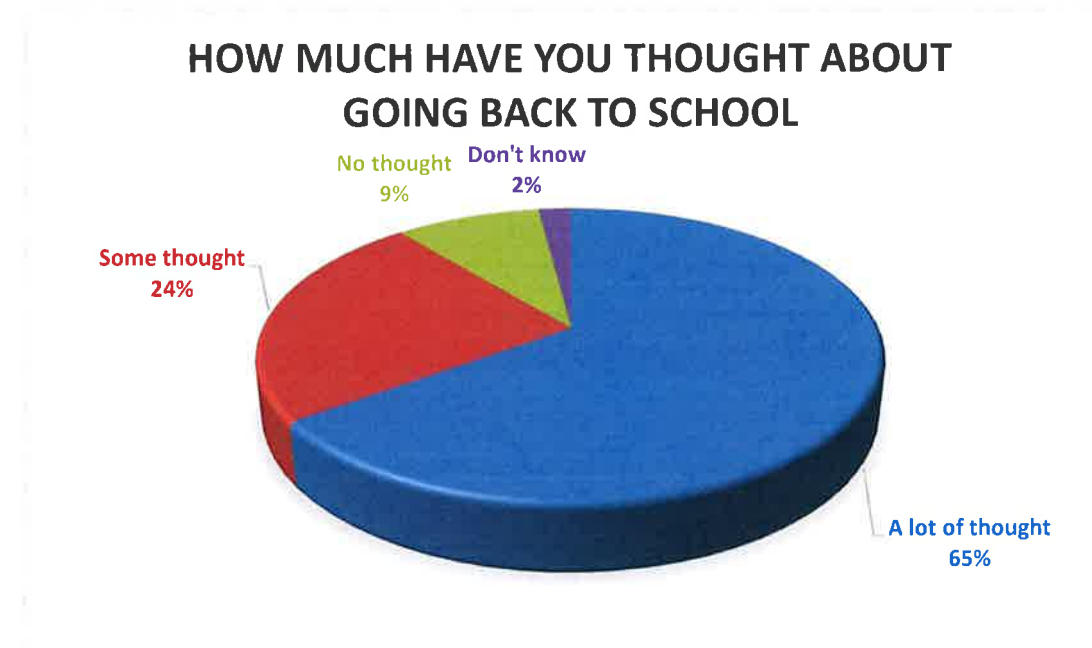
- a. Categorical (The Brand)
- b. Categorical (The State)
- c. Numerical - Continuous (Price)
- d. Numerical - Continuous (centimeter)
- e. Categorical (Zip code is like a suburb)
- f. Numerical - discrete (how much weights in cans)

Q1.21 (p.18) - Going back to school

a. Bar chart

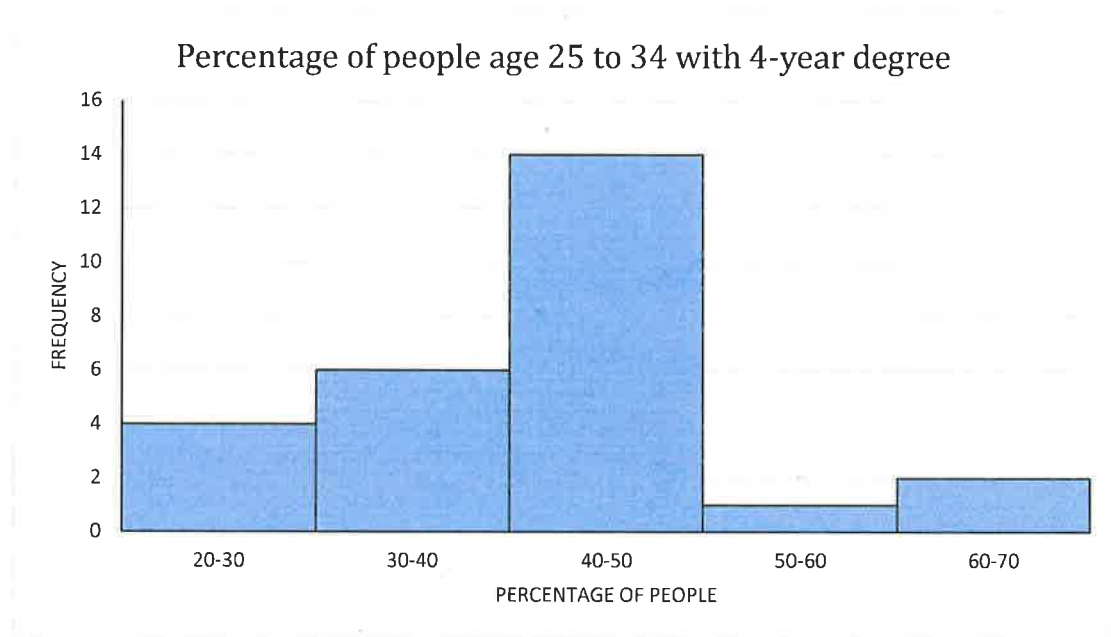


b. Pie chart



Q3.24 (p.112-113) - Percentage of people age 25 to 34 with 4-year degree

<i>Percentage of people</i>	<i>Frequency</i>
20-30	4
30-40	6
40-50	14
50-60	1
60-70	2



Q4.1 (p.156) - Truck prices

X_i represents the prices of trucks

X_i	Sort in ascending order
159.00	123.99
199.00	126.00
157.00	127.65
127.65	157.00
123.99	159.00
126.00	199.00

Total 892.64

n (sample size) 6

a. Mean = Total x_i / n
= 892.64 / 6
\$ 148.77

b. Median = $(n + 1) / 2$
= $(6 + 1) / 2$
3.50 Rank observation
The average values between X_3 and X_4 are 127.65 and 157.00
= $(127.65 + 157.00) / 2$
142.33

Q4.9 (p.158) - speed related crash fatalities

Xi represents the number of Speed-Related Traffic Fatalities

	<u>Xi</u>
	1247
	916
	614
	440
	387
	361
	360
	356
	326
	316
	297
	272
	271
	250
	218
Total	6,631
n (sample size)	15

a. Mean = Total xi / n
 = 6,631 / 15
 442

b. Median **356** (The middle number from the set of data)

c. The sample represents the 15 states with the highest number of speed-related fatalities, does not include the other 35 states.
So, it is not reasonable to generalize from this sample to the other 35 states.

Q4.17 (p.165) - Cheese costs

	(1)	(3) = (1) - (2)	(4) = (3) x (3)
Cheese Cost			
29	-	23.11	534.12
62		9.89	97.79
37	-	15.11	228.35
41	-	11.11	123.46
70		17.89	320.01
82		29.89	893.35
47	-	5.11	26.12
52	-	0.11	0.01
49	-	3.11	9.68
Total	469		2,232.89
Sample mean			52.11 (2)
Sample variance = Total of (4) / (n - 1)			279.11 (5)
Sample deviation = Square root of (5)			16.707

Note: n = 9

Q4.19 (p.165) - fiber cereals rated

	(1)	(3) = (1) - (2)	(4) = (3) x (3)
Fiber Cereals Rated			
46		-3.400	11.56
49		-0.400	0.16
62		12.600	158.76
41		-8.400	70.56
19		-30.400	924.16
77		27.600	761.76
71		21.600	466.56
30		-19.400	376.36
53		3.600	12.96
53		3.600	12.96
67		17.600	309.76
43		-6.400	40.96
48		-1.400	1.96
28		-21.400	457.96
54		4.600	21.16
Total	741		3,627.60

- a. Population mean **49.400**
- b. Population variance = Total of (4) / N **241.84**
- c. Population deviation = Square root of (5) **15.551**

Note: N = 15