Summary measures

Ex 8.1

Diet B	n	50.000
	Mean	3.710
	SD	2.769

Table 1. Diet B data

As you can see in table 1 above, the sample size for diet B is also 50, thus 50 individuals undertook Diet B. The sample mean weight loss is 3.710, meaning the average weight loss for those on Diet B was 3.710 kg. This indicates that the diet was effective, however less effective than Diet B. The standard deviation s = 2.769. The mean is larger than 1s but much smaller than 2 s which could indicate that the diet was not successful for all participants and is further evidence that Diet A is more effective.

Ex 8.2

Diet B	n	50
	Mean	3.710
	SD	2.769
	Median	3.745
	Q1	1.953
	Q3	5.404
	IQR	3.451

Table 2. Diet B data

As you can see from table 2, the median weight loss for diet B is 3.745. Again, this would evidence that the diet has been effective, however less effective than diet A was. The interquartile range is 3.451 which is very high compared to the median. This would indicate that the variance of success from the diet is high. Again, this further evidences the higher success from diet A.

Ex 8.3

	Area 1	Area 2
A	15.7	21.1
B	24.3	33.3
Other	60.0	45.6
Total	100	100.0

Table 3. Brand preference for Area 1 and 2

For this example, it is easier to compare the results as percentages rather than frequencies due to the different number of data points taken from Area 1 and Area 2. As you can see from the table above, most participants preferred another brand, however Brand A and Brand B more both more popular in Area 2 than Area 1. Comparing only Brand A and Brand B, we can see that brand B is more popular in both Area 1 and Area 2.