Summary Measures

8.1 Sample size, mean and standard deviation

Diet A	n	50
	Mean	5.341
	SD	2.536
Diet B	n	50
	Mean	3.710
	SD	2.769

Both diets had a sample size of 50.

The sample mean weight loss for Diet A was 5.341kg with a standard deviation of 2.536kg.

The sample mean weight loss for Diet B was 3.710kg with a standard deviation of 2.769kg.

Diet A had a higher sample mean weight loss, and a smaller standard deviation, meaning that the results were more tightly clustered around the mean. In other words, Diet A had both a better mean result (higher weight loss) and a more reliable result (smaller standard deviation).

Diet A seems like the better diet for weight loss.

8.2 Median, quartiles and interquartile range

Diet A	n	50
	Mean	5.341
	SD	2.536
	Median	5.642
	Q1	3.748
	Q3	7.033
	IQR	3.285
Diet B	n	50
	Mean	3.710
	SD	2.769
	Median	3.745
	Q1	1.953
	Q3	5.404
	IQR	3.451

Diet A had a sample median weight loss of 5.642kg, first quartile of 3.748kg and third quartile of 7.033kg, giving an interquartile range of 3.285kg.

Diet B had a sample median weight loss of 3.745kg, first quartile of 1.953kg and third quartile of 5.404kg, giving an interquartile range of 3.451kg.

Once again Diet A performed better for weight loss with a higher values for sample median, first quartile and third quartile, plus a lower interquartile range. Similar to when looking at the sample mean and standard deviation, this shows that the weight loss for Diet A was both higher, and more tightly clustered.

8.3 Frequencies and percentages

Frequencies

	Area 1	Area 2
A	11	19
B	17	30
Other	42	41
Total	70	90

Percentages

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

Area A had 70 respondents, of which 15.7% preferred brand A, 24.3% preferred brand B and 60% preferred another brand.

Area B had 90 respondents, of which 21.1% preferred brand A, 33.3% preferred brand B and 45.6% preferred another brand.

In both areas brand B was preferred to brand A, and another brand was preferred to brand B.

Loyalty to both brands A and B was higher in area 2, where the difference between brand A and B was also higher.