Diet	Wtloss
A	3.709
A	7.087
A	6.754
A	8.994
A	9.077
A	6.413
A	5.877
A	2.572
A	7.520
A	6.881
A	7.265
A	3.477
A	3.755
A	8.760
A	7.032
A	9.052
A	10.062
A	4.840
A	6.449
A	9.019
A	-1.715
A	4.718
A	4.007
A	7.241
A	2.128
A	6.968
A	4.853
A	0.055
A	2.680
A	3.746
A	7.033
A	5.033
A	5.569
A	6.712
A	3.663
A	2.741
A	6.256
A	5.349
A	7.300
A	5.445
A	4.970
A	3.613
A	7.568
A	5.861
A	4.157
A	0.203
A	4.441
A	5.875
A	5.715
A	0.280
B	-1.087
B	1.819
B	0.074
B	1.755
B	1.889
B	3.089
B	4.008
B	4.551
B	1.372
B	3.413
B	-4.148
B	2.823
B	2.865
B	4.369
B	6.337
B	6.308
B	3.494
B	10.539
B	3.840
B	5.123
B	5.485
B	-1.894
B	8.016
B	2.310
B	3.882
B	7.030
B	7.727
B	0.105
B	3.650
B	4.547
B	4.985
B	5.159
B	4.760
B	4.934
B	3.106
B	5.598
B	2.162
B	6.520
B	7.046
B	1.757
B	1.848
B	1.096
B	2.145
B	8.435
B	6.099
B	3.972
B	2.409
B	0.569
B	7.013
B	2.594

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

Interpretation

This analysis compares weight loss for two diets, each using 50 participants. For Diet A, the mean is about 5.341 and the median is about 5.642, with lower (Q1) and upper (Q3) quartiles at about 3.748 and 7.033, giving an IQR of around 3.285. The IQR shows how spread out the middle 50% of data is. For Diet B, the mean is around 3.710 and the median is 3.745, while Q1 is approximately 1.953 and Q3 is about 5.404, leading to an IQR of about 3.451.

Although Diet B has a slightly wider middle range (IQR), Diet A's higher mean and median point to overall greater weight loss. Therefore, Diet A appears more effective for weight reduction.

DATA SET B (Diets.xlsx)

These data relate to the weight losses achieved by two separate samples of 50 human subjects, each of whom undertook one of two different weight reducing diets (A or B).

Variable	Description
Diet	The diet undertaken (A or B)
Wtloss	The individual's weight loss (in kg) following a fixed period on the relevant diet

Note that a *negative* value of Wtloss indicates that the individual's weight *increased* over the study period.

The data are as follows:

Diet	Wtloss
A	3.709
A	7.087
A	6.754
⋮	⋮
B	-1.087
B	1.819
B	0.074
⋮	⋮