# **Exercise 8.2**

Open the Excel workbook in **Exe 8.2B.xlsx** from the Exercises folder. Obtain the sample median, first and third quartiles and the sample interquartile range of the weight loss for Diet B. Place these results in the block of cells F26 to F29, using the same format as that employed for the Diet A results in the above example.

Briefly interpret your findings. What do these results tell you about the relative effectiveness of the two weight-reducing diets?

## **Results**

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

## A brief interpretation of the findings:

As the sample median weight loss for Diet A (M = 5.642 kg) is greater than the sample median weight loss for Diet B (M = 3.745 kg), Diet A appears to be more effective than Diet B.

However, the sample interquartile range of the weight loss for Diet A is IQR = 3.285 kg which is lower than the sample interquartile range of the weight loss for Diet B (3.451). Therefore, the results indicate that a high proportion of those on Diet B had positive weight loss.