# **Exercise 8.1**

Open the Excel workbook in Exe 8.1B.xlsx from the Exercises folder. Obtain the sample size, sample mean weight loss and the sample standard deviation of the weight loss for Diet B. Place these results in the block of cells F23 to F25, 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 |
|  | **Mean** | 5.341 |
|  | **SD** | 2.536 |

|  |  |  |
| --- | --- | --- |
| **Diet B** | **n** | 50 |
|  | **Mean** | 3.710 |
|  | **SD** | 2.741 |

## A brief interpretation of the findings:

As the sample mean weight loss for Diet A (5.341) is more significant than the sample mean weight loss for Diet B (3.710), the average weight loss for those who undertook Diet A appears to be effective compared to Diet B.

In addition, the sample standard deviation of the weight loss for Diet B is s = 2.741 kg. Since the mean weight loss is smaller than 2s, then a lower proportion of those individuals on Diet B had a positive weight loss, again emphasising the ineffectiveness of the diet.