## **Summary Measures**

**1. Understanding the data**

|  |  |  |  |
| --- | --- | --- | --- |
|  | sample size | mean weight loss for Diet | standard deviation |
| Diet A (the number of non-blank data entries for WtLoss) | 50 | 5.341 | 2.535602613 |
| Diet B (the number of non-blank data entries for WtLoss) | 50 | 3.710 | 2.769041999 |

We have two independent samples:

**Diet A**

* Sample size
* Mean weight loss
* Standard deviation

**Diet B**

* Sample size
* Mean weight loss
* Standard deviation

**2. Descriptive comparison**

* Mean weight loss for Diet A is  units (kg or lbs, not specified).
* Mean weight loss for Diet B is  units.
* Difference in means:  units.

So **on average**, Diet A produced **greater weight loss** than Diet B by about 1.63 units.

**3. Variability**

Standard deviations are similar:

* Diet A:
* Diet B:

This suggests similar spread in individual weight loss results for both diets.

**4. Interpretation without a formal test yet**

From sample statistics alone:

* Diet A’s mean is higher than Diet B’s mean.
* Since sample sizes are equal and reasonably large (n=50 each), the difference is unlikely due solely to chance — but we’d need a hypothesis test (two-sample t-test) to confirm statistical significance.

However, the question says: *“Briefly interpret your findings. What do these results tell you about the relative effectiveness…”*

So based purely on these summary stats:  
**Diet A appears more effective** for weight loss than Diet B in this sample.

**5. Practical significance**

The difference of **1.63** units could be practically important depending on the units (if kg, that’s meaningful for a weight loss program over the diet period).  
The consistency (both have similar standard deviations) suggests the difference in means might be real.

**6. Final summary interpretation:**

The data show that, on average, participants on Diet A lost more weight (5.34 units) than those on Diet B (3.71 units), with a difference of about 1.63 units. Both groups had similar variability in individual results. This suggests Diet A may be more effective, but a formal hypothesis test would be needed to confirm if this difference is statistically significant.

## **Appendix**

Data Analysis: 8.1B

