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 $n_A = 50$
- Mean weight loss $\acute{x}_A = 5.341$
- Standard deviation $s_A = 2.536$

Diet B

- Sample size $n_B = 50$
- Mean weight loss $\acute{x}_B = 3.710$
- Standard deviation $s_B = 2.769$

2. Descriptive comparison

- Mean weight loss for Diet A is 5.341 units (kg or lbs, not specified).
- Mean weight loss for Diet B is 3.710 units.
- Difference in means: $5.341 - 3.710 = 1.631$ 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: 2.536
- Diet B: 2.769

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

Exe%208.1B%20(Exercise%206.1).xlsx