# Summary Measures

## Exercise 6.1 & 6.2

| Measure | Diet A | Diet B |
|---|---|---|
| Sample Size (n) | 50 | 50 |
| Mean Weight Loss | 5.341 kg | 3.710 kg |
| Standard Deviation | 2.536 kg | 2.769 kg |
| Median Weight Loss | 5.642 kg | 3.745 kg |
| IQR | 3.285 kg | 3.812 kg |

## Interpretation:

**Diet A is more effective:** Both the mean and median weight loss are higher for Diet A, suggesting stronger overall performance.

**Less variability in Diet A:** The standard deviation for Diet A is slightly lower, meaning more consistent results.

**IQR is similar:** While Diet B has a slightly wider IQR, the central tendency (median) Favors Diet A.

**Conclusion:** On average, individuals lost more weight and had more consistent results with Diet A compared to Diet B.

## Exercise 6.3

**Brand A** more preferred in Area 2 (21.1%) than in Area 1 (15.7%).

**Brand B** shows higher popularity in Area 2 (33.3%) than Area 1 (24.3%).

**Preference for "Other" brands** is higher in Area 1 (60%) compared to Area 2 (45.6%).

**Conclusion:** Area 2 exhibits stronger preferences for known brands (A and B), while Area 1 shows a greater inclination toward other alternatives — indicating potential demographic or market strategy differences.