## **Diet Weight Loss Analysis**

**Diet A**

Diet A shows a pattern of weight loss that is somewhat **right-skewed** (positively skewed), meaning the longer tail of the distribution is on the right, towards higher weight loss values.

* The **most common** or modal weight loss is in the range of **5 to 9 kg**, with the bars for the 5-7 kg and 7-9 kg ranges having the highest relative frequency (0.30 each). This means **60%** of the participants had weight loss in this 4 kg window.
* It has a **higher maximum weight loss**, with a small percentage (0.02) achieving a weight loss between **11 and 13 kg** (assuming the bin width is 2 kg, from the axis labels).
* The overall distribution suggests a **higher average weight loss** compared to Diet B, as the bulk of the data is shifted towards the right (higher weight loss values).

**Diet B**

Diet B shows a pattern of weight loss that is closer to a **normal or symmetric distribution**, although it might be slightly skewed left (negatively skewed), as the mean might be slightly pulled towards the lower end due to the relatively high frequencies in the 1-3 kg and -1 to 1 kg ranges.

* The **most common** or modal weight loss is in the range of **3 to 5 kg**, with a relative frequency of **0.30**.
* The frequency of achieving **higher weight loss** (above 7 kg) **drops off more rapidly** than in Diet A.
* It has a **lower average and maximum weight loss** compared to Diet A. The bulk of the weight loss is clustered around the **3 to 7 kg** range, with frequencies of 0.30 (3-5 kg) and 0.22 (5-7 kg).

**Summary Comparison**

In comparison, **Diet A** appears to be **more effective at producing greater weight loss** for a larger proportion of people, as its distribution is shifted toward higher values, with the modal weight loss being higher. **Diet B** is less shifted towards high weight loss, with its most frequent weight loss being lower than that of Diet A.

Appendix A

Data:

