**Diet data set**

This data set contains information on 78 people using one of three diets. The dataset is primarily used for ANOVA.

|  |  |  |
| --- | --- | --- |
| Variable name | Variable | Data type |
| Person | Participant number |  |
| gender | Gender, 1 = male, 0 = female | Binary |
| Age | Age (years) | Scale |
| Height | Height (cm) | Scale |
| preweight | Weight before the diet (kg) | Scale |
| Diet | Diet | Binary |
| weight10weeks | Weight after 10 weeks (kg) | Scale |
| weightLOST | Weight lost after 10 weeks (kg) | Scale |

**Research questions:**

|  |  |
| --- | --- |
| Technique | Research question |
| 1. Paired t-test | Ignore diet and test to see if weight has been lost |
| 1. Compute variable | Remove weight lost and get students to calculate it using before/after weights |
| 1. Summary statistics | Summary statistics by diet |
| 1. One way ANOVA | Which diet was best for losing weight?  Are there gender differences for weight lost? |
| 1. Two-way ANOVA | Effect of diet and gender on weight lost |
| 1. Interactions | Means plot of weight lost by diet and gender |
| 1. ANCOVA | Add height to either ANOVA |