1.)

Import

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Length | Min | 1Q | Median | Mean | 3Q | Max | Standard Dev |
| Participants | 25 | 211 | 298.4 | 424.9 | 410.1 | 456.3 | 635.2 | 121.5138 |
| Non-Participants | 22 | 137.9 | 296.4 | 374.7 | 374.1 | 445.6 | 688.8 | 133.1393 |

Chart, histogram

Description automatically generated

Chart, histogram

Description automatically generated

2.)

**Step 1**

H0 : Mean Calorie Consumption for participants = 425

H1 : Mean Calorie Consumption for participants does not equal 425

Alpha = .05

**Step 2**

T-test statistic since the number of participants is 25 which is less than 30

**Step 3**

Alpha/2 = .025

Critical value is 2.064

Decision Rule : Reject H0 if t is greater than or equal to 2.064

Otherwise Fail to reject H0 (accept)

**Step 4**

T statistic = 0.6139386

P Value = 0.545032

**Step 5**

Since the P-Value is large, and the T statistic isn’t greater that the critical value, we accept, aka fail to reject the null Hypothesis that the mean calorie consumption is 425.

3.)

Confidence Interval is (368.5208, 451.6792)

There is a 90% chance that the mean calorie intake is between those two numbers.

The null value is in this confidence interval

4.

Graphical user interface, text, application

Description automatically generated