

V1V2Chpt

V1-7:

The grand mean is the weighted average of all the y_j taken with the weights n_j . Using the values given in V-4, we get:

$$\text{Grand Mean} = \frac{1}{33} * (12 * 23.75 + 12 + 14.083 + 9 * 15.778) = 595.998/33 = 18.06054$$

Therefore, we have shown that the Grand Mean is equal to the required value.

V2-8:

```
2 * pt(-0.7344, 30)
```

```
## [1] 0.4684068
```

Since this p-value is considerably high, we would reject the null hypothesis at many of the conventional significance levels.