1. Use the given link Data Set.

Answer the below questions:

a. What are the assumptions of ANOVA, test it out?

ANS.

1. Independence of cases – this is an assumption of the model that simplifies the statistical analysis.
2. Normality – the distributions of the residuals are normal.
3. Equality (or "homogeneity") of variances, called homoscedasticity...

b. Why ANOVA test? Is there any other way to answer the above question?

ANS.

The **one-way** **analysis of variance** (**ANOVA**), also known as *one-factor ANOVA*, is an extension of [independent two-samples **t-test**](http://www.sthda.com/english/wiki/unpaired-two-samples-t-test-in-r) **for comparing means in a situation where there are more than two groups**.

In **one-way ANOVA**, the data is organized into several groups base on one single grouping variable (also called *factor* variable).

**Note** that, if you have only two groups, you can use [t-test](http://www.sthda.com/english/wiki/unpaired-two-samples-t-test-in-r). In this case the **F-test** and the **t-test** are equivalent.

The function **pairewise.t.test**() can be also used to calculate pairwise comparisons between group levels with corrections for multiple testing.