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What dataset are you working with: bad\_drivers

List 3 questions that you can ask with your dataset.

Q1: Is the number of seconds added per point different between hard courts and clay courts?

Q2: Is the number of seconds added per point different between clay courts and carpet courts?

Q3: Is there a difference in the number of added between four court surface types: grass, clay, carpet, and hard?

List the associated null hypothesis for each question:

Q1: The number of seconds added per point on hard courts is different than the number of seconds added per point on clay courts.

Q2: The number of seconds added per point on clay courts is different than the number of seconds added per point on carpet courts.

Q3: There is not a difference in the number seconds added per point between four court surface types: grass, clay, carpet, and hard.

What statistical test(s) will you use to answer each of the questions:

Q1: two-way t test

Q2: two-way t test

Q3: one-way ANOVA

Make a visual plot showing the relationship that you will analyze statistically (e.g. boxplot for t-test or ANOVA; scatterplot for regression; table for chi-square).



Do your data meet the assumptions required for the statistical test you want to run? Please state the assumptions you examined and whether or not your data meet those assumptions:

Q1: Data met the assumptions of normality and equal variance

Q2: Data met the assumptions of normality and equal variance

Q3: Data met the assumptions of normality

Run the statistical test! Put your results here:

Q1:



Q2:



Q3:





Interpret your results!

Q1: There is a statistically significant (p-value = 2.2e^-16) difference between seconds added per point between hard courts and clay courts.

Q2: There is a statistically significant (p-value = 2.2e^-16) difference between seconds added per point between clay courts and carpet courts.

Q3: Each of the four court surface types are significantly (p-value = 2e-16) different from each other.