Questions for final exam

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Lecture 8a

What does the ggplot function **geom_point** do?

- The function is used to create scatterplots.
- This function is helpful to get the geometric points in a dataset.
- This function can be used to create a histogram.
- This function does not exist at all.

Lecture 8b

In statistics, what is the meaning of **multicollinearity**?

- Its a phenomenon in which two or more predictor variables in a regression model are highly correlated.
- Its a model in which many values are linear.
- There is no such thing as multicollinearity in statistics.
- It is a model in which there is no relationship between multiple variables.

Lecture 9a

Given the piece of code below:

```
N <- 100
df <- data.frame(
  var1 = runif(N, min=0, max=10),
  var2 = sample(letters[1:5], N, replace=T)
)
kable(head(df))
```

Which of the variables declared above are categorical?

- var2 is the categorical variable
- var1 is the categorical variable
- The sample does not have any categorical variable

Lecture 9b

What does **floor(2.9)** return?

- Returns the number 2
- Throws an error since the function floor does not exist in R
- Rounds the number 2.9 to 3
- Returns the number 2.9

Lecture 10a

What does **readRDS()** function do?

- Reads a binary file into a dataframe
- Reads a csv data set
- There is no such function in R

Lecture 10b

Which function returns the column names of a dataframe?

- names()
- getcols()
- readRDS()
- readdata()

Lecture 11a

What is **Centrality** in the igraph package?

- Degree of the graph
- The central point in a graph
- A point in the graph
- There is no such term in igraphics package

Lecture 11b

What is **Vertex and edge betweenness()** in the igraph package?

- The number of geodesics (shortest paths) going through a vertex or an edge
- The distance between two points in a graph
- Does not really mean anything

Lecture 12a

What is the equation for a line?

- y = mx + b, where y is the y intercept, m is the slope and b is the constant
- y = mx + b, where y is the name of the line, m is the mean
- a + b + c = 0
- None of the choices

Lecture 12b

Which plotting function adds one or more straight lines through a current plot?

- abline()
- addline()
- moreline()
- None of the choices

Lecture 13a