1. Say you surveyed students and employees at Douglas college regarding how many hours per month they listen to the radio. These are the data you collect:
Students: 15,13,17,20,15,18,11,2,14,10,14,10,15,11,1
Employees: 27,25,20,4,12,27,15,14,25,15,27,18,23,15,24

a. How would you portray these data to allow someone to quickly see patterns?

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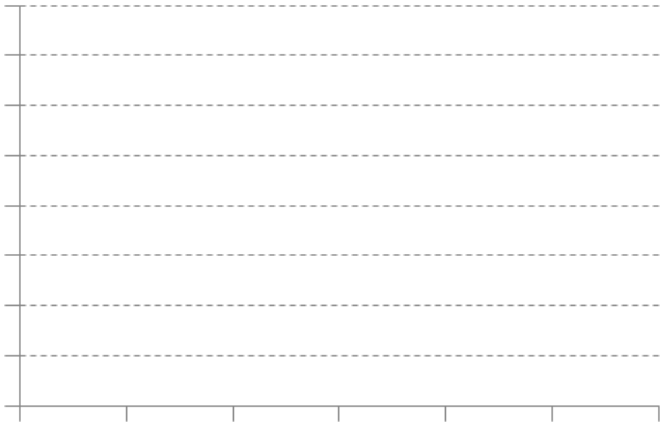b. Which variable here is a categorical variable and which one is numeric?

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c. Complete the grouped frequency tables for students and for employees according to the guidelines in the steps below.
Steps for Making a Frequency Table:
  i.   Make a list down the margin of the page of each possible value, from lowest to highest
  ii. Chunk those values into ranges if making a grouped frequency table.
    • Tip: Make categories that start with "0"s or "5s" and end with "4"s or "9"s (e.g. 0-4, 5-9 or 0-9, 10-19) – choose categories that work for both sets of data.
    • Tip: Ideally you want at least 4, but not more than 8 categories
  iii. Go one by one through the scores, making a mark for each next to its value on the list
  iv. Make a table showing how many times each value on the list appears
  v.   Figure the percentage of scores for each category

e. Create graphs below to represent the student and employee data. Be sure to label axes and title the graphs appropriately.

2. For each of the following types of data, indicate the level of measurement and the corresponding type of graph that would be suitable:

a. You collect information on personality from a number of patients in a cardiology ward. You find that 50% fit the description of a neurotic personality, 30% are introverted, and 20% are highly open to new experiences.

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b. You are analyzing data from the census regarding the number of children per household in Canada. You find out that in one small geographical area, 1000 families have 1 child, 1500 families have 2 children, 300 families have 3 children, and 500 families have no children.

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c. You are curious about the ethnic mix of students at a local school and discover that of 500 students, 100 are East Asian, 200 are South Asian, 150 are White and 50 are Pacific Islanders.

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