Name: _____ Date:_____ Period: _____ **Review**

Mid-Unit 1A Review – Exploring One Variable Data (Categorical)

Reviews do NOT cover all material from the lessons but will hopefully remind you of key points. To be prepared, you must study all packets for lessons 1.1 – 1.4.

1. A high school health class wants to understand how much time students sleep each night. The class decides to conduct a statistical study in which a group of 75 students is surveyed and asked to report the number of minutes they sleep on a typical school night.

   a. Identify the population.

   b. Identify the sample.

   c. Identify the variable. Label as Categorical or Quantitative. If Quantitative determine if Discrete or Continuous.

   d. Write a strong statistical investigative question.

2. A city restaurant association wants to understand which food delivery app residents prefer so they can plan future partnership opportunities. The association randomly selects 150 residents and records each person's preferred delivery app (DoorDash, Uber Eats, Grubhub, Postmates, or Instacart). The association believes that DoorDash is the most popular app, and they want to determine whether the data support this claim.

Delivery App	Counts
Uber Eats	32
Grubhub	24
Postmates	16
DoorDash	60
Instacart	18

a. Identify the population.	b. Identify the sample.
c. Identify the parameter.	d. Identify the statistic.
e. Identify the variable. Label as Categorical or Quantitative. If Quantitative determine if Discrete or Continous.	f. Identify the observational unit.

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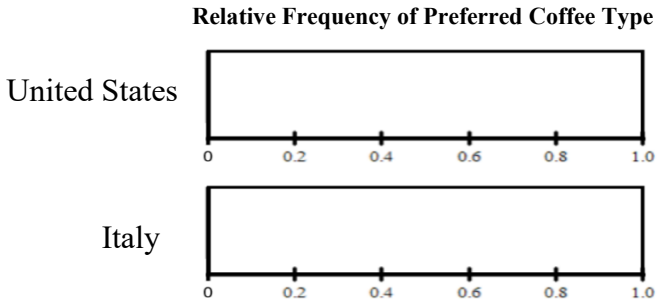
3. Starbucks wants to know if preferred drink type differs between customers in the United States and customers in Italy. The company randomly surveys 160 customers in the United States and 220 customers in Italy, and asks each person their primary drink order.

Country	Latte	Espresso	Drip Coffee
United States	96	32	32
Italy	66	110	44

a. Researchers surveyed 160 customers in the United States and 220 customers in Italy. Explain why relative frequency (a proportion), rather than raw count, must be used to fairly compare drink preference between the two countries.

b. Construct a segmented bar graph to display the distribution of preferred coffee type.



c. Describe the distribution of preferred coffee type for both countries using relative frequencies.

d. A Starbucks employee claims that Latte's are more popular with Americans than Espresso is among Italians. Does your segmented bar graph support this claim? Justify your answer using relative frequencies.

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