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Student ID: ✓

ECON 0150 | MiniExam 1 | Demo

This MiniExam will take 20 minutes. For each dataset, identify its dimensions and select an appropriate visualization. Answer clearly and concisely.

Academic Conduct Code

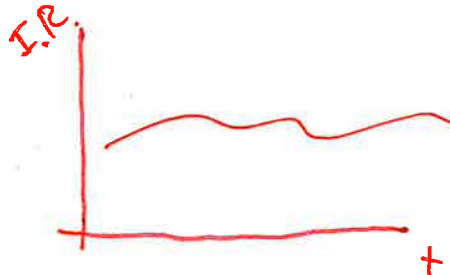
The following academic conduct code is designed to protect the integrity of your work. Print your name/initials beside the three academic honesty agreements. I pledge to my fellow students, the university, and the instructor, that:

- ☒ Complete this MiniExam solely using my own work.
- ☒ Not use any digital resources unless explicitly allowed.
- ☒ Not communicate directly or indirectly with others during the MiniExam.

Q1. Monthly inflation rates for the United States (see Table 1)

a) Identify the data dimensions:

- Data Structure: Timeseries
- Variable Type(s): Numerical
- Number of Variables: 1

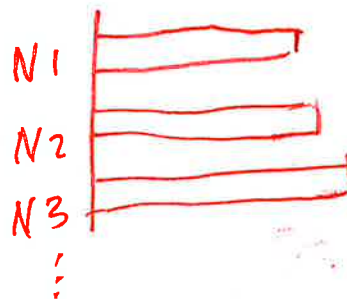


b) Draw or describe an appropriate visualization to the right →

Q2. Coffee shop locations by neighborhood (see Table 2)

a) Identify the data dimensions:

- Data Structure: Cross-Sectional
- Variable Type(s): Nominal Cat
- Number of Variables: 1

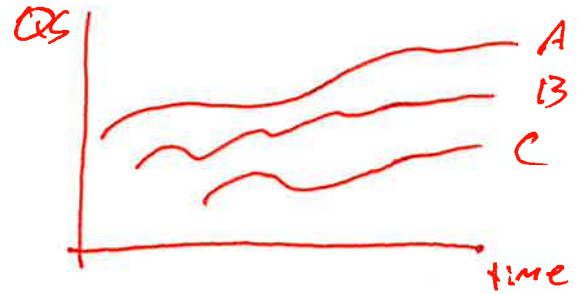


b) Draw or describe an appropriate visualization to the right →

Q3. Quarterly sales for three retail stores (see Table 3)

a) Identify the data dimensions:

- Data Structure: Panel
- Variable Type(s): Numerical (continuous)
- Number of Variables: 3 (1)

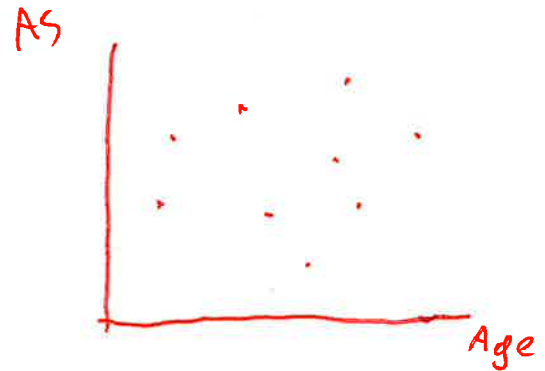


b) Draw or describe an appropriate visualization to the right →

Q4. Employee age and salary data (see Table 4)

a) Identify the data dimensions:

- Data Structure: Cross-Section
- Variable Type(s): Numerical (Discrete, continuous)
- Number of Variables: 2

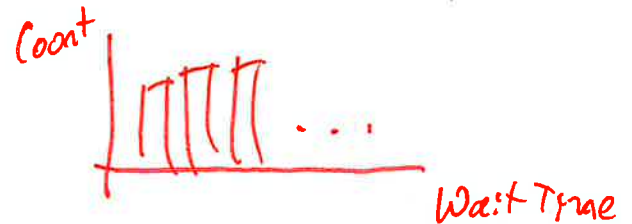


b) Draw or describe an appropriate visualization to the right →

Q5. Customer wait times at a bank in minutes (see Table 5)

a) Identify the data dimensions:

- Data Structure: Cross-Section
- Variable Type(s): Numerical (continuous)
- Number of Variables: 1

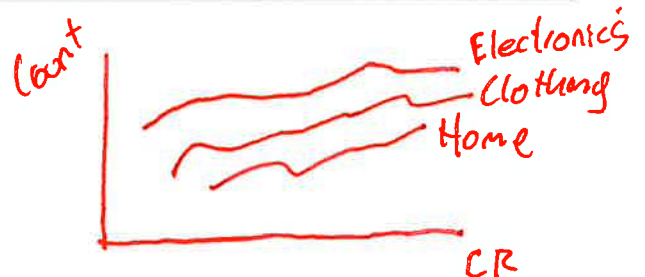


b) Draw or describe an appropriate visualization to the right →

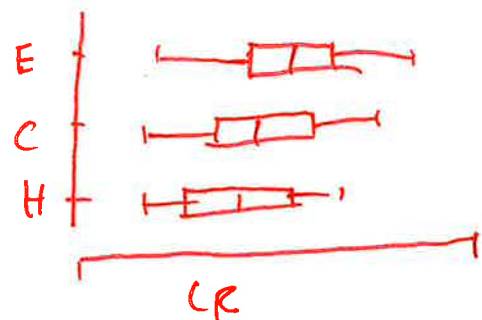
Q6. Product ratings by category (see Table 6)

a) Identify the data dimensions:

- Data Structure: Cross-Section
- Variable Type(s): Nominal Cat x Continuous (Num.)
- Number of Variables: 2



b) Draw or describe an appropriate visualization to the right →



Data Tables

Table 1: Monthly Inflation Rates

Month	Year	Inflation_Rate
Jan	2023	6.4%
Feb	2023	6.0%
...
Mar	2025	3.8%
Apr	2025	4.1%

Table 2: Coffee Shop Locations

Shop_ID	Neighborhood
001	Oakland
002	Shadyside
003	Oakland
004	Downtown
...	...

Table 3: Quarterly Sales

Quarter	Store_A	Store_B	Store_C
Q1_2023	45,000	38,000	52,000
Q2_2023	48,000	41,000	51,000
Q3_2023	52,000	39,000	55,000
...

Table 4: Employee Data

Employee_ID	Age	Annual_Salary
E001	25	45,000
E002	32	58,000
E003	28	51,000
E004	45	78,000
...

Table 5: Customer Wait Times

Customer	Wait_Time (minutes)
C001	3.5
C002	12.2
C003	5.8
C004	2.1
...	...

Table 6: Product Ratings

Product_ID	Category	Customer_Rating
P001	Electronics	4.2
P002	Clothing	3.8
P003	Electronics	4.5
P004	Home	3.9
P005	Clothing	4.1
P006	Electronics	3.7
P007	Home	4.3
P008	Clothing	3.6