

Name: \_\_\_\_\_

Student ID: \_\_\_\_\_

## ECON 0150 | MiniExam 1 | Demo

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

a) Identify the data dimensions:

- Data Structure: \_\_\_\_\_
- Variable Type(s): \_\_\_\_\_
- Number of Variables: \_\_\_\_\_

b) Draw or describe the most effective visualization to the right →

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

a) Identify the data dimensions:

- Data Structure: \_\_\_\_\_
- Variable Type(s): \_\_\_\_\_
- Number of Variables: \_\_\_\_\_

b) Draw or describe the most effective visualization to the right →

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

**a) Identify the data dimensions:**

- Data Structure: \_\_\_\_\_
- Variable Type(s): \_\_\_\_\_
- Number of Variables: \_\_\_\_\_

**b) Draw or describe the most effective visualization to the right →**

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**Q4. Unemployment rates for three states over time (see Table 4)**

**a) Identify the data dimensions:**

- Data Structure: \_\_\_\_\_
- Variable Type(s): \_\_\_\_\_
- Number of Variables: \_\_\_\_\_

**b) Draw or describe the most effective visualization to the right →**

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

**a) Identify the data dimensions:**

- Data Structure: \_\_\_\_\_
- Variable Type(s): \_\_\_\_\_
- Number of Variables: \_\_\_\_\_

**b) Draw or describe the most effective visualization to the right →**

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**Q6. Product ratings by category (see Table 6)**

**a) Identify the data dimensions:**

- Data Structure: \_\_\_\_\_
- Variable Type(s): \_\_\_\_\_
- Number of Variables: \_\_\_\_\_

**b) Draw or describe the most effective 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 (\$)

Store	Q1_2023	Q2_2023	Q3_2023	Q4_2023	...
Store_A	45,000	48,000	52,000	61,000	...
Store_B	38,000	41,000	39,000	47,000	...
Store_C	52,000	51,000	55,000	63,000	...

Table 4: State Unemployment Rates (%)

State	Year	Unemployment_Rate
Pennsylvania	2020	8.1
Pennsylvania	2022	4.5
Ohio	2020	7.9
Ohio	2022	4.2
New York	2020	10.2
New York	2022	4.9

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
...	...	