

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

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.

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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 →

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#### 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

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**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 (%)**

<b>State</b>	<b>Year</b>	<b>Unemployment_Rate</b>
Pennsylvania	2020	8.1
Pennsylvania	2021	6.4
Pennsylvania	2022	4.5
Ohio	2020	7.9
Ohio	2021	5.8
Ohio	2022	4.2
New York	2020	10.2
New York	2021	7.6
New York	2022	4.9
...	...	...

**Table 5: Customer Wait Times**

<b>Customer</b>	<b>Wait_Time (minutes)</b>
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