**Problem 1:**

Input:

- Allow the user to enter a quantity and price repeatedly until stopped (Ctrl+Z).
- For each input, receive the quantity and price.

Processing:

- Write a function to compute the total.
    - Receive the quantity and price.
    - Compute the total (quantity * price).
    - If the total is over $10,000.00, apply a 10% discount.
    - Return the total.
- Display the quantity, price, and total for each input.
- Sum the extended prices.

Output:

- Display the quantity, price, and total for each input.
- Display the sum of all extended prices.

**Problem 2:**

Input:

- Allow the user to enter the player's last name, number of hits, and at bats repeatedly until stopped (Ctrl+Z).
- For each input, receive the last name, number of hits, and at bats.

Processing:

- Write a function to compute the batting average.
    - Receive the number of hits and at bats.
    - Compute the batting average (hits / at bats).
    - Return the batting average.
- Display the last name and batting average for each player.
- Count the number of players entered.

Output:

- Display the last name and batting average for each player.
- Display the count of the number of players entered.

**Problem 3:**

Input:

- Allow the user to enter the destination city, miles traveled, and gallons used for a trip repeatedly until stopped (Ctrl+Z).
- For each input, receive the destination city, miles traveled, and gallons used.

Processing:

- Write a function to compute miles per gallon.
    - Receive the miles traveled and gallons used.
    - Compute miles per gallon (miles traveled / gallons used).
    - Return miles per gallon.
- Display the destination city, miles, and miles per gallon for each trip.
- Count the number of entries made.

Output:

- Display the destination city, miles, and miles per gallon for each trip.
- Display the count of the number of entries made.

**Problem 4:**

Input:

- Allow the employee to enter last name, job code, and hours worked repeatedly until stopped (Ctrl+Z).
- For each input, receive the last name, job code, and hours worked.

Processing:

- Write a function to determine the pay rate.

    - Receive the job code.
    - Return the rate of pay based on the job code (L: $25/hr, A: $30/hr, J: $50/hr).
- Compute gross pay.
    - If hours worked is over 40, give time and a half for overtime.
- Display the last name and gross pay for each employee.
- Sum the total of all gross pay.

Output:

- Display the last name and gross pay for each employee.
- Display the total of all gross pay.

**Problem 5:**

Input:

- Allow the user to enter student last name, credit hours, and district code repeatedly until stopped (Ctrl+Z).
- For each input, receive the student last name, credit hours, and district code.

Processing:

- Write a function to compute tuition owed.
    - Receive credit hours and district code.
    - Return tuition owed based on the district code (I: $250 per credit hour, O: $550 per credit hour).
- Display the student name and tuition owed for each student.
- Sum the total of all tuition owed.

Output:

- Display the student name and tuition owed for each student.
- Display the total of all tuition owed.