| **Problem** | **Input** | **Process** | **Output** |
| --- | --- | --- | --- |

|  |  |  |  |
| --- | --- | --- | --- |
| **1. Sales Forecast Calculation** | User input: last name, month, sales | - Prompt user to continue with Yes/No - Use function to determine forecast percent based on month - Calculate next month’s sales as sales × (1 + forecast percent) | Display next month’s sales forecast |

|  |  |  |  |
| --- | --- | --- | --- |
| **2. Room Paint Calculation** | User input: length, width, height | - Prompt user to continue with Yes/No - Use function to calculate square footage:  2 × length × width (floor & ceiling) + 2 × length × height (two walls) + 2 × width × height (two walls) - Calculate gallons needed as square footage / 50 | Display gallons needed |

|  |  |  |  |
| --- | --- | --- | --- |
| **3. Car Price Calculation** | User input: make, model, electric vehicle code, MSRP | - Prompt user to continue with Yes/No - Use function to determine discount percent based on make, model, and electric code - Calculate new MSRP as MSRP × (1 - discount percent) - Add 7% sales tax to the adjusted MSRP - Sum all MSRPs and sale prices of cars | Display total price for car, sum of MSRPs, and sum of final prices |

|  |  |  |  |
| --- | --- | --- | --- |
| **4. Train Ticket Price Calculation** | User input: last name, miles from downtown Chicago | - Prompt user to continue with Yes/No - Use function to determine ticket price based on distance - Sum prices of all tickets | Display ticket price for each customer and total of all ticket prices |

|  |  |  |  |
| --- | --- | --- | --- |
| **5. Home Assessment Value Calculation** | User input: county, market value | - Prompt user to continue with Yes/No - Use function to determine assessed value percent based on county - Calculate assessed value as market value × assessed value percent - Sum and display all market and assessed values | Display assessed value, total market value, and total assessed value |