

# Sample solution algorithm to determine meal charges



**ASSIGN  
BUSTER**

Week 2 Activity - Meal Purchase TCO #2- Given a simple business problem, design a solution algorithm that uses arithmetic expressions and built-in functions. Assignment: Your goal is to solve the following simple programming exercise. You have been contracted by a local restaurant to design an algorithm determining the total meal charges. The algorithm should ask the user for the total food purchase and the tip percent. Then, the algorithm will calculate the amount of a tip, a 7% sales tax, and the total meal charge (including tip). The food purchase, sales tax, tip amount, and total meal charge will need to be displayed to the customer.

Be sure to THINK about the logic and design first (IPO chart and pseudocode), then code the Visual Logic command line processing. Display all output using currency formatting (built-in Visual Logic function).

Advanced (optional): use a constants for the 7% sales tax. Rubric: When completed staple the following documents together neatly in 1, 2, 3, 4 order:

- This instruction sheet first
- The IPO Chart, second
- The Pseudocode, third
- The Flowchart and output example last.

Point distribution for this application: Meal Purchase Document: Points possible: Points received IPO Chart Pseudocode 6 Flowchart 8 Total Points 20 IPO Chart: Input Processing Output Enter Total Food Purchase Price Calculate Food price Add Tip %\* Total Food Purchased Add 7% tax \* Total Food Purchased Total Meal Charge Pseudocode: Begin mealPurchase Total Food Purchased Input total Purchased Food Amount Please enter the amount for tip percent Input tip percent Set total tip = tip percent/ 100 Set total tip= total tip \* Total food purchased amount Set total tax= sales tax/100 Set total tax= total tax\* =

total food purchased amount End Flowchart: Example Output after execution: