

Unit 2 - Program Design

Name: _____

Complete the design steps for the problem below. DUE: _____

At a natural foods store, 3 products are offered:

Ground beef	\$2.50/pound
White rice	\$1.00/pound
American cheese	\$1.50/pound

Each week on Friday afternoons (from 1 – 3 pm), supervisors and staff from the local community shelters and food pantries are allowed to purchase as much of each of the products as they would like at a 20% discount. They must enter the number of pounds for each item. Then display the order total dollar amount.

Food Store (30 points):

IPO

- (1 point) Input column identifies all input fields
- (1 point) Output column identifies all Output fields
- (1 point) Meaningful variable names
- (1 point) Variable names follows naming convention
- (1 point) Processing logic describes what has to be done

Solution Algorithm

- (1 point) Algorithm named using verb object
- (1 point) Algorithm name follows naming convention
- (1 point) Algorithm is indented
- (1 point) Names in algorithm match input and output variables name in IPO
- (1 point) Processing logic gets the correct variables
- (1 point) Processing logic follows flow of logic from IPO
- (1 point) Processing logic correctly solves the problem
- (1 point) Processing logic displays the correct variables
- (1 point) Algorithm ends

Desk Check

- (1 point) One sets of test data
- (1 point) Correct expected results
- (1 point) Relevant variable names from algorithm are included in table
- (1 point) Correct statement numbers match algorithm
- (1 point) One correct pass thru the algorithm

User Interface

- (1 point) Form includes all identified inputs and outputs from IPO
- (1 point) Descriptive Labels identify textbox objects
- (1 point) Descriptive labels identify output results
- (1 point) Two buttons, one to calculate, one to close
- (1 point) Form has a title
- (1 point) Flow of the form is logical (layout) and consistent
- (1 point) Common controls grouped

Controls, Names and Properties List

- (1 point) All controls from screen layout are listed
- (1 point) Valid control names
- (1 point) Values are listed for Controls
- (1 point) Step 1, 2, 3, and 5 are typed