

CIS 121 Sequence Problems

Develop an IPO Chart and C++ code the following problems. Upload the IPO and code files to Blackboard.

Save your files with the convention PS2P1, PS2P2 etc. PS1P1 is Problem set 1, program 1 etc.

- Allow the user to enter the quantity and unit price (price per item). Compute extended price (quantity x price). Display the extended price.

Input	Process	Output
Quantity	Calculation of Extended price with the equation $Quantity \times Unit\ price = Extended\ price$	Extended price
Unit price		

- Allow the user to enter last name, hours and pay rate. Compute gross pay to be hours x rate. (Note: we are not giving time and a half for over time hours yet!). Display last name and gross pay.

Input	Process	Output
Last name	Calculation of gross pay with the equation $Hours \times Rate = Gross\ pay$	"Last name" gross pay var
Hours	Display Gross pay with last name	
Pay rate		

- The user is to enter the length and width of a rectangle. Computer the area (length x width) and the circumference ($2 \times length + 2 \times width$). Display the area ad circumference.

input	Process	Output
Length	Calculation of Area with the equation $Length \times Width = Area$	Area
	Calculation of Circumference with the equation $2L + 2W = Circumference$	Circumference

Width		

4. Enter last name and credits taken. Tuition is \$250 per credit hour. Add a \$100 lab fee. Compute total tuition (credits taken x 250 + lab fee). Display last name and tuition.

Input	Process	Output
Last name	Calculate Total tuition with equation (Credits x 250 + lab fee)	“Last name” Tuition
Credits taken	Display with last name Var	

5. The price of an item and discount percent is entered into the program. Display the discount amount and discounted price of the item. Note: enter the discount percent in decimal form.

Input	Process	Output
Price of an item	Calculate Discount amount with equation: Price of an item - Discounted price= Discount amount	Discount amount
	Calculate Discount price with equation: Price of an item- (Price of an Item x Discount percent in decimal form)	Discount price
Discount percent		