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.

1. 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 |
| qty | Calculate totalprice | totalprice |
| unitprice | totalprice=qty\*unitprice |  |
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1. 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.

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| --- | --- | --- |
| Input | Process | Output |
| lname | Calculate grosspay | lname |
| hrs | grosspay=hrs\*prate | grosspay |
| prate |  |  |
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1. The user is to enter the length and width of a rectangle. Computer the area (length x width) and the circumference (2 x length + 2 x width). Display the area ad circumference.

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| --- | --- | --- |
| Input | Process | Output |
| length | calculate area and circumference | area |
| width | area=length\*width | circumference |
|  | Circumference=(2\*length+2\*width) |  |
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|  |  |  |
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1. 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.

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| --- | --- | --- |
| Input | Process | Output |
| lname | Calculate tuitiontotal | lname |
| credits | tuitiontotal=(credits\*250+100) | tuitiontotal |
|  |  |  |
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1. 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.

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| --- | --- | --- |
| Input | Process | Output |
| itemprice | Calculate amountdiscounted and discountprice | amountdiscounted |
| discountpercent //tell them to enter in decimal form | amountdiscounted =itemptice\*discountpercent | discountprice |
|  | discountprice=itemprice-amountdiscounted |  |
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