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 extendedprice  Extprice = qty \* price | extprice |
| unitprice |  |  |
|  |  |  |
|  |  |  |

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.

|  |  |  |
| --- | --- | --- |
| Input | Process | Output |
|  |  |  |
| lname | Calculate grosspay  Gpay = hrs x prate | Gpay  lname |
| Hrs |  |  |
| prate |  |  |
|  |  |  |

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.

|  |  |  |
| --- | --- | --- |
| Input | Process | Output |
|  |  |  |
| len | Calculate area and the circumference  Area= length x width  Circ=2 x length + 2 x width | Area  circ |
| wid |  |  |
|  |  |  |
|  |  |  |

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.

|  |  |  |
| --- | --- | --- |
| Input | Process | Output |
|  |  |  |
| Lname | Calculate tuition  Tuit= tcredits \* 250 + 100 | Lname  tuition |
| tcredits |  |  |
|  |  |  |
|  |  |  |

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.

|  |  |  |
| --- | --- | --- |
| Input | Process | Output |
|  |  |  |
| prc | Calculate Discount amount  Discamount= prc \* discperc  Calculate discounted price  Discprc = prc - discamount | Discamount  discprc |
| discperc |  |  |
|  |  |  |
|  |  |  |