CIS 106 Session Assignments Set 1 Problems.

Develop an IPO Chart for following problems within this document. Then write a Python program for each. Upload the IPO (this document) and the Python files to Github repository in a Week1 folder. Then paste the link to your repository into the Assignment 1 Upload within Blackboard.

Problems to Solve

1. Prompt the user to enter a quantity (which is a floating point number) and price per unit (float). Then computer extended price (quantity x price per unit). Display the extended price.

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| Input | Process | Output |
| * Price per unit * Number of units | * Multiply price per unit by number of units | * Display total price |

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 |
| * Last Name * Number of hours worked * Pay rate | * Multiply hours and pay rate * Display last name and gross pay | * last name and gross pay |

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 * width | * Multiply length and width * Multiply length by 2 * Multiply width by 2 * Add length\*2 and width\*2 | * Area * Circumference |

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 |
| * Last Name * Credits taken * 100 * 250 | * Multiply credits taken by 250 * Add 100 to previous step | * last name and total tuition cost |

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 |
| * Price * Discount decimal | * Multiply price by 1-discount percentage * Multiply discount decimal by 100 | * Display discount percentage and discounted price |