CIS 106 Session Assignments Set 1 Problems.

Put them into this Word document and save. Upload the document to your GitHub Repository. Finally paste the link to you repository into the assignment upload link in Blackboard for grading.

Save your files with the convention PS2P1, PS2P2 etc. (see syllabus for details on the naming convention. Develop a IPO for the following problems.

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** | | --- | |
| Quantity (float) | Calculate Extended Price: extended\_price = quantity \* price\_per\_unit | Extended Price (float) |
| Price per unit (float) | |  |  |  | | --- | --- | --- | |  |  |  |  |  |  |  | | --- | --- | --- | |  | Display the calculated Extended 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 (string) | Calculate Gross Pay: gross\_pay = hours \* pay\_rate | Last Name (string) |
| Hours worked (float) | Display Last Name and Gross Pay | Gross Pay (float) |
| Pay rate (float) |  |  |

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 (float) | Calculate Area: area = length \* width | Area (float) |
| Width (float) | Calculate Circumference: circumference = 2 \* length + 2 \* width | Circumference (float) |

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 (string) | Calculate Tuition: tuition = credits\_taken \* 250 + 100 | Last Name (string) |
| Credits taken (integer) | Display Last Name and Tuition | Tuition (float) |

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 (float) | |  | | --- | | discountAmount = price \* discountPercent |  |  | | --- | |  | | Print Discount Amount |
| discountPercent (float) | |  | | --- | | discountedPrice = price - discountAmount |  |  | | --- | |  | | Print Discounted Price |
| User enters price & discount % | Use Python input() to read and convert values | Display both values using print |