Session Advanced Functions – Create IPO Chart and code for each problem below.

1. The input consists of quantity, price and discount rate. Use a function to compute the discount amount and discounted price. Then display these values in main along with the quantity and price. (The function should return both discount amount and discounted price).

Input	Process	Output
qty price discrate	#Main input qty, price, discrate Call Computedisc (qty, price, discrate) Return discamt & discprice discamt=qty*price*discrate discprice= qty* price-discrate	qty price discamt discprice
	def Computedisc: Display discamt, discprice	discamt discprice

2. Enter the student's last name and 3 exam scores. Use a function to compute the **average** and **total points**. This function should return both total points and exam score. Display student last name, total points and average exam score.

Input	Process	Output
Lname exam1 exam2 exam3	input Lname, exam1,2,3 def Computepoints (avgscore, ttlpoints): ttlpts= exam1 +exam2+exam3 avgscore= ttlpts/3 **return: ttlpts , score**	Lname ttlpts avgscore
	Display– Lname, ttlpts, avgscore	

3. Produce a sales report. Input salesperson last name and sales. Write a function that compute commission which is 10% for sales over $100, 000 and 5% for sales at

or under $100,000. The function should also compute next year's target which is 5% of the sales. This function should return both **commission** and next year's **target**. Display salesperson name, commission and next year's target.

Input	Process	Output
Lname sales	#Main Input: salespn, Lname, sales call Computesales(Lname, sales) if statement determining comm **return: comm, nexttarget**	Lname comm nexttarget
	Display– Lname, comm, nexttarget	comm nexttarget

4. Enter bowler last name, 3 game scores and handicap. Write a function to compute average score and average score with handicap. Back in main, display last name, average score and average score with handicap.

Input	Process	Output

Lname
gs1
gs2
gs3
handicap
	#Main
	input(Lname, gs1,gs2,gs3, handicap)
	
	Call CompAvgscore(Lname, gs1,gs2,gs3, handicap)
	Return: Lname, avgscore, avghandicap
	Display: Lname, avgscore, avghandicap)
		Lname
		avgscore
		avghandicap

5. Allow the user to enter quantity of an item and unit price. Write a function to compute total (qty * unit price) and tax (7% of total). Demonstrate your knowledge of global variables by making total and tax global in scope. Display **total** and **tax** in main.

Input	Process	Output
qty uprice	input qty, uprice call ComputeTotal (qty,uprice)	ttl tax

	def ttl=qty * uprice tax=0.07* ttl return ttl, tax	
	Display ttl, tax	