CIS 121 Introduction to Programming
Sequential code and the if statement

1. Allow a user to enter a quantity of an item. If the quantity is greater than or equal to 1000, the unit price should be $3.00. For quantities under 1000 the unit price is $5.00. Compute extended price to be quantity x unit price. Compute tax to be 7% of the extended price. The total is computed as extended price plus the tax. Display the quantity, unit price, extended price, tax and total.

input	process	output
Quantity of item	If quantity> -> unit price= $3.00 E;se -> unit price =$5.00 Extended price = quantity x price Tax = 7% of extended price	Quantity, unit price, extended price, tax,total
	Total = extended price + tax	

2. The program asks the user for an item and quantity. Determine the unit price of the item based on the chart below. Compute the extended price to be quantity x unit price. Display the item, unit price and extended price.

Input	process	output
Item (A or B), quantity	If item = A -> unit price = $10 If item=B-> unit price = $20 Extended price = quanity x unit price	Item,unit price, extended price

Item	Unit Price
A	$10.00
B	$20.00

3. Enter the number of books to order and cost per book. If the order total is over $50.00 shipping is free. If the order total is $50.00 or under charge $25 shipping. Display the order total and shipping charge (note 0 should display for a free shipping charge).

input	process	output
Number of books, cost per book	Order total= number of books x cost per book If order total > $50 -> shipping = $0	Order total, shipping charge, final total

	Else-> shipping = $25 Total = order total + shipping	

4. The warrantee of an appliance depends on the cost of the appliance. For appliances over $1,000 the warrantee cost is 10% of the price. For appliances $1,000 or less the warrantee cost is 5% of the price. The user will enter the name and cost of an appliance. Display name and cost of appliance, the cost of the warrantee and the total (cost of the appliance + warranty).

input	process	output
Appliance name,cost of appliance	If cost >$1000 -> warranty = 10% of cost Else -> warranty =5% of cost Total = cost + warranty	Appliance name,cost,warranty,total

5. Enter the user's last name, number of dependents and gross income. Compute adjusted gross income to be gross income minus dependents times $12000. Next determine an income tax rate. Adjusted gross incomes over $50,000 have a tax rate of 20%. Adjusted gross incomes $50,000 or under have a tax rate of 10%.

   Once you determine the tax rate, compute income tax to be adjusted gross income times tax rate. If the income tax is less than 0, set the income tax to $100.

   Display last name, gross income, number of dependents, adjusted gross income, and income tax.

input	process	output
Last name, number of dependants, gross income	Adjusted gross income = gross income – (dpeendents x 12000) If adjusted . $50,000 -> tax rate = 20% Else -> tax rate = 10% Income tax = adjusted x tax rate If income tax < 0 -> set to $100	Last name, gross income, dependents, adjusted income, income tax