Nested If Assignment Problems. Do the IPO and code for each of the problems below.

1) The student will enter their last name and score. Determine their letter grade using the scale below. Display the student last name and letter grade.

Score	Letter Grade
90 & up	A
80 to 89	B
70 to 79	C
60 to 69	D
Below 60	F

Input	Process	output
Student last name	IF score ≥ 90 THEN grade = A	Student last name
Student score	ELSE IF score ≥ 80 THEN grade = B	Display letter grade
	ELSE IF score ≥ 70 THEN grade = C	
	ELSE IF score ≥ 60 THEN grade = D	
	ELSE grade = F	

2) You are buying apples in bulk. Enter the quantity in pounds, determine the price per pound, then display the price per pound and total.

LBS	Price Per Pound
>100	.10
50-100	.25
Under 50	.50

Input	Process	output
Enter pounds of apples		Price per pound

	IF pounds > 100 THEN price per pound = .10	
	ELSE IF pounds ≥ 50 THEN price per pound = .25	Total cost
	ELSE price per pound = .50	
	Total cost =pounds × price per pound	

3) Enter the employee last name, hours worked and job code. Compute the pay based on the hourly rate per the job code. Display employee last name, hours worked, pay rate and total.

Job Code	Pay Rate
E	25.00
J	20.00
A	15.00

Input	Process	output
Employee last name	IF job code = E THEN pay rate = 25.00	Employee last name
Hours worked	ELSE IF job code = J THEN pay rate = 20.00	Hours worked
Job code	ELSE pay rate = 15.00	Pay rate
	Total pay = hours worked × pay rate	Total pay

4) Allow the user to enter the annual salary. Determine the tax rate from the table below. Compute the tax amount owed. Display salary, tax rate and tax amount.

Salary	Tax Rate
>100,000	40%
50,000 - 100,000	35%
Under 50,000	25%

Input	Process	output
Annual salary	IF salary > 100000 THEN tax rate = 40%	Salary
	ELSE IF salary ≥ 50000 THEN tax rate = 35%	Tax rate
	ELSE tax rate = 25%	Tax amount
	Tax amount =salary × tax rate	

5) You are running a metal recycling center and must pay people for metals they bring in. You give them a rate based on the weight in the table below. Allow the user to enter the weight. Determine the rate and then display the weight, rate and total given to the customer.

Weight	Rate Per Pound
>100	.50
30-100	.25
20- less 30	.20
Less 20	.10

Input	Process	output
Weight of metal	IF weight > 100 THEN rate = .50	Weight
	ELSE IF weight ≥ 30 THEN rate = .25	Rate per pound
		Total pay

	ELSE IF weight ≥ 20 THEN rate = .20	
	ELSE rate = .10	
	Total pay =weight × rate	