

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
Last name	If (score is ≥ 90) It is a A Else if (score is ≥ 80 score is \leq) = B Else if (score is ≥ 70 score is ≤ 79) = C Else if (score is ≥ 60 score is ≤ 69) = C Else (score is < 60) = F	Last name and letter grade
Score		

- 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
Quantity	If (Quantity > 100) Price per pound is 0.10 Else if (Quantity >=50 quantity <= 100) Price per pound is 25 Else (quantity < 50) Price per pound 0.50 Price per pound * Quantity = total	Price per pound Total

- 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
Last name	If (Code = E) Pay rate = 25 Else if (Code = J) Pay rate = 20 Else if (code = A) Pay rate = 15 Else (invalid) Hours worked * Pay rate = total	Last name Hours worked Pay rate Total

Hours worked		
Job code		

- 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 > 100,000) Tax rate = 0.40 Else if (salary <= 100,000 salary >= 50,000) Tax rate = 0.35 Else if (salary < 50,000) Tax rate = 0.30 Salary * tax rate = tax amount	Salary Tax rate Tax amount

- 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	If (weight > 100) Rate per pound = .50 Else if (weight <= 100 weight >= 30) Rate per pound is .25 Else if (weight < 30 weight >= 20) Rate per pound is .20 Else Rate per pound is .10 Weight * rate = total	Weight Rate Total