P3:

The Commission Problem includes a salesperson in the former Arizona Territory sold rifle locks, stocks and barrels made by a gunsmith in Missouri.
Cost includes
Locks- $45
Stocks- $30
Barrels- $25

The salesperson had to sell at least one complete rifle per month and production limits were such that the most the salesperson could sell in a month was 70 locks, 80 stocks and 90 barrels. After each town visit, the sales person sent a telegram to the Missouri gunsmith with the number of locks, stocks and barrels sold in the town.

At the end of the month, the salesperson sent a very short telegram showing -1 lock sold. The gunsmith then knew the sales for the month were complete and computed the salesperson's commission as follows:

On sales up to(and including) $1000= 10%
On the sales up to(and includes) $1800= 15%
On the sales in excess of $1800= 20%

The commission program produces a monthly sales report that gave the total number of locks, stocks and barrels sold, the salesperson's total dollar sales and finally the commission.

Requirements:

R1: The system should read the number of locks, stocks and barrels sold in a month.
R2: If R1 is satisfied the system should compute sales person's commission depending on the total number of locks, stocks and barrels sold, else it should display suitable error message. Following is the percentage of commission for sales:

10% on sales upto and including $1000
15% on next $800
20% on any sales in excess of $1800 and also the system should compute the $sales.
The system should output salesperson total, $sales and his commission.

DESIGN
Algorithm
STEP 1: Define lockPrice=45.0, stockPrice=30.0, barrelPrice=25.0
STEP2: Input locks
STEP3: while(locks!=-1) ‘input device uses -1 to indicate end of data goto
STEP 12
STEP4:input (stocks, barrels)
STEP5: compute lockSales, stockSales, barrelSales and sales
STEP6: output(“Total sales:” sales)
STEP7: if (sales > 1800.0) goto STEP 8 else goto STEP 9
STEP8: commission=0.10*1000.0; commission=commission+0.15 * 800.0;
commission = commission + 0.20 * (sales-1800.0)
STEP9: if (sales > 1000.0) goto STEP 10 else goto STEP 11
STEP10: commission=0.10* 1000.0; commission=commission + 0.15 * (sales-1000.0)
STEP11: Output(“Commission is $”, commission)
STEP12: exit