MAT-11B Program Design HW

Problems: 23 below

```matlab
do this assignment in one script file. the first seven lines should
clc
clear
format compact
format short g %gives best default representation
disp('First Name, Last Name')
disp('ENG1181, Seat #')
disp('Array Creation HW')

then for each problem

disp('Problem #')
```

Special Instructions:
You have two choices of flow charts to use for your program. Pick one and write code to go with it. Add a for loop to repeat the code three times so that you can run the three test cases.

Display which flowchart you used to create the code within the MATLAB code
Ex: disp('Problem 28 Phone_Call_1')

23. Write a program in a script file that calculates the cost of a telephone call according to the following price schedule:

<table>
<thead>
<tr>
<th>Time the call made</th>
<th>Duration of call</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1–10 min</td>
</tr>
<tr>
<td>Day: 8 A.M. to 6 P.M.</td>
<td>$0.10/min</td>
</tr>
<tr>
<td>Evening: 6 P.M. to 12 A.M.</td>
<td>$0.07/min</td>
</tr>
<tr>
<td>Night: 12 A.M. to 8 A.M.</td>
<td>$0.04/min</td>
</tr>
</tbody>
</table>

The program asks the user to enter the time the call is made (day, evening, or night) and the duration of the call (a number that can have one digit to the right of the decimal point). If the duration of the call is not an integer, the program rounds up the duration to the next integer. The program then displays the cost of the call.

Run the program three times for the following calls:
(a) 8.3 min at 1:32 P.M.  
(b) 34.5 min at 8:00 P.M.  
(c) 29.6 min at 1:00 A.M.

Submit printouts of both the Script File and the Command Window