Program_04_1

Requirements

Write a script that will load change due data from **Tutorial_04_1_Data.xlsx** and calculates the minimum number of coins to provide the change due.

- Load Change Due from **Tutorial_04_1_Data.xlsx** sheet **Coins**
- Compute the minimum coins needed to provide the change due
- Output should print to the command window
- Output should print to the file **Tutorial_04_1_Data.xlsx** sheet **Coins** in the appropriate cell array to fill the fields for quarters, dimes, nickels, pennies, and total number of coins.

Program

In the code block below, create your program, editing the existing text as necessary.

Tip: You will likely use the following functions which will help compute the values needed.

- floor() - Rounds down to the nearest integer
- rem() - Calculates the remainder from a division

Note: If you are using Octave then you will need to create a separate script file, save that separate file as the name **Program_02_01**. It will not conflict with this file of the same name since the extension will be different.

```
% Filename: Program_04_1
% Author:   Geoff Berl
% Assisted by: No one

% Program Description:
% The purpose of this program is to read change data from and Excel sheet
% and to compute the minimum number of coins needed to make the change.

% Clear the command window and all variables
clc        % clc clears the contents of the command window
clear      % clear, clears all defined variables from the Matlab workspace

% Output of the title and author to the command window.
```

Example Output

Your program output should match the following, be sure to check that your values are correctly stored in the Excel file.

Output for Program_04_1 written by Geoff Berl.

Original Data read from Tutorial_04_1_Data.xlsx

Minimum Number of Coins Needed to Make Change

Change Due(cents)	Quarters	Dimes	Nickels	Pennies	Total coins
1	0	0	0	1	1
3	0	0	0	3	3
5	0	0	1	0	1
7	0	0	1	2	3
10	0	1	0	0	1
12	0	1	0	2	3
13	0	1	0	3	4
15	0	1	1	0	2
20	0	2	0	0	2
22	0	2	0	2	4
25	1	0	0	0	1
28	1	0	0	3	4
30	1	0	1	0	2
32	1	0	1	2	4
35	1	1	0	0	2
38	1	1	0	3	5
40	1	1	1	0	3
43	1	1	1	3	6
45	1	2	0	0	3
47	1	2	0	2	5
50	2	0	0	0	2
53	2	0	0	3	5
55	2	0	1	0	3
59	2	0	1	4	7
60	2	1	0	0	3
61	2	1	0	1	4
65	2	1	1	0	4
66	2	1	1	1	5
70	2	2	0	0	4
73	2	2	0	3	7
75	3	0	0	0	3
78	3	0	0	3	6
80	3	0	1	0	4
82	3	0	1	2	6
85	3	1	0	0	4
86	3	1	0	1	5
90	3	1	1	0	5
92	3	1	1	2	7
95	3	2	0	0	5
100	4	0	0	0	4

These values have also been written to Tutorial_04_1_Data.xlsx