Assignment 4

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Editor - C:\Users\Ivani\Desktop\580\hw4.m

lec5.m | hw3.m | hw4.m | hw5.m

```
1   Z=csvread('Cereals no alpha.csv');
2   [rows,cols]=size(Z);
3   disp([rows,cols])
4   sugar=Z(:,7);
5   fiber=Z(:,5);
6   rating=Z(:,13);
7   protein=Z(:,2);
8   fat=Z(:,3);
9   sodium=Z(:,4);
10
11  [b0,b1,b2,rsq,s,F,StdRes] = linfit2D(sugar,fiber,rating);
12
13  [b0_p,b1_p,b2_p,b3_p,rsq_p,StdErrEst_p,StdRes_p] = linfit3D(sugar, fiber, protein, rating);
14
15  [b0_f,b1_f,b2_f,b3_f,rsq_f,StdErrEst_f,StdRes_f] = linfit3D(sugar, fiber, fat, rating);
16
17  [b0_s,b1_s,b2_s,b3_s,rsq_s,StdErrEst_s,StdRes_s] = linfit3D(sugar, fiber, sodium, rating);
18
19  % Create a table
20  T = table({'Sugar, Fiber'; 'Protein'; 'Fat'; 'Sodium'}, [rsq; rsq_p; rsq_f; rsq_s], ...
21      [s; StdErrEst_p; StdErrEst_f; StdErrEst_s], 'VariableNames', {'Name', 'Rsq', 's(StdErrEst)'});
22
23  % Display the table
24  disp(T);
```

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```
26  %rsq difference
27  rsq_difference1 = rsq - rsq_p;
28  rsq_difference2 = rsq - rsq_f;
29  rsq_difference3 = rsq - rsq_s;
30
31  s_diff1 = s - StdErrEst_p;
32  s_diff2 = s - StdErrEst_f;
33  s_diff3 = s - StdErrEst_s;
34
35  % Create a table
36  T = table({'Protein'; 'Fat'; 'Sodium'}, [rsq_difference1; rsq_difference2; rsq_difference3], ...
37      [s_diff1; s_diff2; s_diff3], 'VariableNames', {'Name', 'Difference_R^2', 'Difference_s(StdErrEst)'});
38
39  % Display the table
40  disp(T);
```

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Command Window

New to MATLAB? See resources for Getting Started.

```
>> hw4
    77    20

          Name              Rsq       s(StdErrEst)
    ____________________    _______    ____________

    {'Sugar, Fiber'}     0.81199        6.1727
    {'Protein'      }       0.812        6.2146
    {'Fat'          }     0.86781        5.2111
    {'Sodium'       }     0.90326        4.4581

       Name          Difference_R^2    Difference_s(StdErrEst)
    ____________     ______________    _______________________

    {'Protein'}       -1.056le-05             -0.04196
    {'Fat'    }         -0.055822              0.96153
    {'Sodium' }         -0.091265              1.7146

fx >>
```