Help on Problem 7.35: You must use the file `avghighs.dat` given here. It matches the textbook example exactly. To use it, click, double-click, or right-click or control-click the link (it depends on what software you are using to read this help file) and save the file to your local storage. Put it on the path or in the current working directory. To see that the file has been downloaded and placed in the correct directory, you can try two things. In the MATLAB command window, enter the command `dir`. The filename `avghighs.dat` should show up in the list of files. If it does not show, it may have been placed in the wrong directory. The command `pwd` will show you the present working directory. You can change directory (command `cd`) to any directory of your choosing, as an example:

<div align="center">

`cd C:/Users/myname/Desktop/matlab_homework`

</div>

And then make sure the file avghighs.dat is in that directory. You may also use the command

<div align="center">

`type avghighs.dat`

</div>

to print a literal copy of the file to the screen.

The avghighs.dat file contains a matrix of ASCII codes in decimal-number format. The matrix was made by taking each character in the table shown in your textbook and coding it in ASCII. For example, the first number in the table shown in your textbook is "432" so it is three characters. In the file that sequence of three characters appears in the first row and the first three columns of the matrix in the file. There you find the numbers 52 and 51 and 50 which are the ASCII codes for the characters 4 and 3 and 2. The next number in the first row of the table in the textbook is " 33" and notice the leading space, so this number takes three characters of storage in the file. The next three columns of the first row in the file have the numeric values of 32 and 51 and 51 representing a space and then a 3 and then a 3.

Each line of the table in the textbook is 39 characters long. Thus, each row of the matrix in the file has 39 columns, each column representing one character of the table. The table in the textbook has three lines thus the matrix in the file has three rows of numbers. You may assume this file format is fixed—always three rows by thirty-nine columns and always three characters per numeric value, the first character being a leading space and then a two-character numeric value, except the first entry in each row being represented by a three-character value with no leading space.

You need to extract the correct numeric values (and throw out or ignore the spaces) from the file and assemble these into an ordinary matrix variable containing real numbers. (Except you may treat the first column, representing the location, as pure characters if you want.)