**Program 469z**

**(A Matrix is an Array of Arrays)**

Program Description: Read in a set of numbers. The first number you read will give you the number of rows in your matrix. The next number will be the number of columns that are in the first row. The next set of numbers will be the data for the first row. The following number will be the number of elements in the second row. This will be followed by the data for the second row. This will continue for the entire data file. You are to first display the matrix. You are then to calculate and display the average for all of the elements in this matrix. (Use for each loops for this part of the program)

You are then to calculate the average score for each row of the matrix reprinting the matrix with the average at the end of each matrix.

You are then to calculate the average score for each row of the matrix reprinting the matrix with the average as an added row at the end of each matrix.

**Data Location:** prog469z.dat

4

2

1 2

3

1 2 3

4

1 2 3 4

3

1 2 3

Output:

1 2

1 2 3

1 2 3 4

3 3 3

1 2 1.5

1 2 3 2

1 2 3 4 2.5

3 3 3 3

1 2

1 2 3

1 2 3 4

3 3 3

1.5 2.25 3 4