

# Program 470c

## (adding rows and columns)

**Program Description:** Read a 5 X 5 two-dimensional array from an external data file. The data is stored in rows. Print out the original matrix. Then, you are to find the total of each row and column, store them into the sixth positions in your matrix. Finally print out your new 6 X 6 matrix which includes the totals.

**Statements Required:** input, output, loop control, decision making, arrays

**Data Location:** prog464a.dat

**Sample Output:**

Original Matrix

|    |    |    |    |    |
|----|----|----|----|----|
| 45 | 67 | 89 | 12 | -3 |
| -3 | -6 | -7 | -4 | -9 |
| 96 | 81 | -8 | 52 | 12 |
| 14 | -7 | 72 | 29 | -1 |
| 19 | 43 | 28 | 63 | 87 |

With Totals

|     |     |     |     |    |     |
|-----|-----|-----|-----|----|-----|
| 45  | 67  | 89  | 12  | -3 | 210 |
| -3  | -6  | -7  | -4  | -9 | -29 |
| 96  | 81  | -8  | 52  | 12 | 233 |
| 14  | -7  | 72  | 29  | -1 | 107 |
| 19  | 43  | 28  | 63  | 87 | 240 |
| 171 | 178 | 174 | 152 | 86 | 761 |

