

```
1  #include <stdio.h>
2  int main(void)
3  {
4      //variable declaraions
5      int iArray[3][5]; // 3 ROWS (0, 1, 2) AND 5 COLUMNS (0, 1, 2, 3, 4)
6      int int_size;
7      int iArray_size;
8      int iArray_num_elements, iArray_num_rows, iArray_num_columns;
9      int i, j;
10
11     //code
12     printf("\n\n");
13
14     int_size = sizeof(int);
15
16     iArray_size = sizeof(iArray);
17     printf("Size Of Two Dimensional ( 2D ) Integer Array Is = %d\n\n",      ↗
        iArray_size);
18
19     iArray_num_rows = iArray_size / sizeof(iArray[0]);
20     printf("Number of Rows In Two Dimensional ( 2D ) Integer Array Is = %d\n\n", ↗
        iArray_num_rows);
21
22     iArray_num_columns = sizeof(iArray[0]) / int_size;
23     printf("Number of Columns In Two Dimensional ( 2D ) Integer Array Is = %d\n  ↗
        \n", iArray_num_columns);
24
25     iArray_num_elements = iArray_num_rows * iArray_num_columns;
26     printf("Number of Elements In Two Dimensional ( 2D ) Integer Array Is = %d\n  ↗
        \n", iArray_num_elements);
27
28     printf("\n\n");
29     printf("Elements In The 2D Array : \n\n");
30
31     // ***** PIECE-MEAL ASSIGNMENT *****
32     // ***** ROW 1 *****
33     iArray[0][0] = 21;
34     iArray[0][1] = 42;
35     iArray[0][2] = 63;
36     iArray[0][3] = 84;
37     iArray[0][4] = 105;
38
39     // ***** ROW 2 *****
40     iArray[1][0] = 22;
41     iArray[1][1] = 44;
42     iArray[1][2] = 66;
43     iArray[1][3] = 88;
44     iArray[1][4] = 110;
45
46     // ***** ROW 3 *****
47     iArray[2][0] = 23;
48     iArray[2][1] = 46;
```

```
49     iArray[2][2] = 69;
50     iArray[2][3] = 92;
51     iArray[2][4] = 115;
52
53     // *** DISPLAY ***
54     for (i = 0; i < iArray_num_rows; i++)
55     {
56         printf("***** ROW %d *****\n", (i + 1));
57         for (j = 0; j < iArray_num_columns; j++)
58         {
59             printf("iArray[%d][%d] = %d\n", i, j, iArray[i][j]);
60         }
61         printf("\n\n");
62     }
63
64     return(0);
65 }
66
67
```