

```
1  #include <stdio.h>
2  int main(void)
3  {
4      //variable declaraions
5      int iArray[5][3] = { {1, 2, 3}, {2, 4, 6}, {3, 6, 9}, {4, 8, 12}, {5, 10, 15} }; //IN-LINE INITIALIZATION
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     // *** ARRAY INDICES BEGIN FROM 0, HENCE, 1ST ROW IS ACTUALLY 0TH ROW AND 1ST COLUMN IS ACTUALLY 0TH COLUMN ***
32     for (i = 0; i < iArray_num_rows; i++)
33     {
34         printf("***** ROW %d *****\n", (i + 1));
35         for (j = 0; j < iArray_num_columns; j++)
36         {
37             printf("iArray[%d][%d] = %d\n", i, j, iArray[i][j]);
38         }
39         printf("\n\n");
40     }
41
42     return(0);
43 }
44
45
```