// Two-dimensional array.

int[,] array2D = new int[,] { { 1, 2 }, { 3, 4 }, { 5, 6 }, { 7, 8 } };

// The same array with dimensions specified.

int[,] array2Da = new int[4, 2] { { 1, 2 }, { 3, 4 }, { 5, 6 }, { 7, 8 } };

// A similar array with string elements.

string[,] array2Db = new string[3, 2] { { "one", "two" }, { "three", "four" },

{ "five", "six" } };

// Three-dimensional array.

int[, ,] array3D = new int[,,] { { { 1, 2, 3 }, { 4, 5, 6 } },

{ { 7, 8, 9 }, { 10, 11, 12 } } };

// The same array with dimensions specified.

int[, ,] array3Da = new int[2, 2, 3] { { { 1, 2, 3 }, { 4, 5, 6 } },

{ { 7, 8, 9 }, { 10, 11, 12 } } };

// Accessing array elements.

System.Console.WriteLine(array2D[0, 0]);

System.Console.WriteLine(array2D[0, 1]);

System.Console.WriteLine(array2D[1, 0]);

System.Console.WriteLine(array2D[1, 1]);

System.Console.WriteLine(array2D[3, 0]);

System.Console.WriteLine(array2Db[1, 0]);

System.Console.WriteLine(array3Da[1, 0, 1]);

System.Console.WriteLine(array3D[1, 1, 2]);

// Getting the total count of elements or the length of a given dimension.

var allLength = array3D.Length;

var total = 1;

for (int i = 0; i < array3D.Rank; i++) {

total \*= array3D.GetLength(i);

}

System.Console.WriteLine("{0} equals {1}", allLength, total);

// Output:

// 1

// 2

// 3

// 4

// 7

// three

// 8

// 12

// 12 equals 12