1.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Security.Policy;

using System.Text;

using System.Threading.Tasks;

using System.Xml.Linq;

namespace ConsoleApp18

{

internal class Program

{

static void Main(string[] args)

{ int size;

Console.WriteLine("enter the sixe of the first array:");

size =int.Parse(Console.ReadLine());

Console.WriteLine("enter the size of the second array:");

size =int.Parse(Console.ReadLine());

int[] array1 = new int[size];

int[] array2 = new int[size];

for (int i = 0; i < size; i++)

{

Console.WriteLine("enter value for array 1:");

array1[i] = int.Parse(Console.ReadLine());

}

for (int i = 0; i < size; i++)

{

Console.WriteLine("enter value for array 2:");

array1[i] = int.Parse(Console.ReadLine());

int scalarSum = 0;

for (int j = 0; i < size; i++)

{

scalarSum += array1[i] + array2[i];

}

Console.WriteLine("Scalar Sum: " + scalarSum);

int[] vectorSumArray = new int[size];

for (int k = 0; i < size; i++)

{

vectorSumArray[i] = array1[i] + array2[i];

}

Console.WriteLine("Vector Sum:");

int[] vectorProductArray = new int[size];

for (int l = 0; i < size; i++)

{

vectorProductArray[i] = array1[i] \* array2[i];

}

Console.WriteLine("Vector Product:");

int scalarProduct = 0;

for (int m = 0; i < size; i++)

{

scalarProduct += array1[i] \* array2[i];

}

Console.WriteLine("Scalar Product: " + scalarProduct);

}

}

}

}

2.

using System;

using System.Collections.Generic;

using System.Linq;

using System.Security.Cryptography.X509Certificates;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp19

{

internal class Program

{

static void Main(string[] args)

{

animal animal = new animal();

animal.dog();

animal.Dog dog = new animal.Dog();

dog.legs();

}

}

}

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApp19

{

internal class animal

{

public void dog()

{

Console.WriteLine("i am a animal");

}

internal class Dog

{

public void legs()

{

Console.WriteLine("i have four legs");

}

}

}

}