

```
//Laboratory Activity7
//Matrix Diagonal Difference
```

```
using System;
using System.Linq;
using System.Collections.Generic;
```

```
namespace HelloWold;
```

```
public static class Activity7
{
```

```
    public static void Main(String[] args)
    {
```

```
        Console.WriteLine("Enter size of square matrix: ");
        int n = int.Parse(Console.ReadLine());
```

```
        while (n < 3)
```

```
        {
            Console.WriteLine("Size must be 3 or more: ");
            n = int.Parse(Console.ReadLine());
        }
```

```
        int[,] matrix = new int[n, n];
```

```
        int leftToRight = 0;
```

```
        int rightToLeft = 0;
```

```
        Console.WriteLine("Enter matrix values:");
```

```
        for (int row = 0; row < n; row++)
```

```
        {
            for (int column = 0; column < n; column++)
            {
```

```
                Console.WriteLine($"{row},{column}");
                matrix[row, column] = int.Parse(Console.ReadLine());
```

```
                if (row == column)
                    leftToRight += matrix[row, column];
```

```
                if (column == n - row - 1)
                    rightToLeft += matrix[row, column];
            }
        }
```

```
        int difference = Math.Abs(leftToRight - rightToLeft);
```

```
        Console.WriteLine($"Left-to-Right Diagonal Sum: {leftToRight}");
```

```
        Console.WriteLine($"Right-to-Left Diagonal Sum: {rightToLeft}");
```

```
        Console.WriteLine($"Absolute Difference: {difference}");  
    }  
}
```