```
*************************************************************************
* 1

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp25
{

    class Parcial
    {
        int c = 0;
        int b = 6;


        public void suma()
        {
            Console.WriteLine("ingrese un numero, le mostrare su table de
multiplicar del 1 al 10.");
            int num= int.Parse(Console.ReadLine());
            while(true)
            {
                if ((c >= 0&& c<10) )
                {
                    c++;
                    Console.WriteLine(num + "*" + c + ":" + (num * c));
                }
                else
                {
                    break;

                }
            }
        }
    }
     class Program
    {
        static void Main(string[] args)
        {
            Parcial n= new Parcial();
            n.suma();

        }
    }
}

*************************************************************************
* 2

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
```

```
namespace ConsoleApp25
{

    interface IMAtriz
    {
        void mostrar();
        void multiplica_x_escalar(int n);
    }
    class MatrizLineal : IMAtriz
    {
        int[] m;
        public MatrizLineal(int[] m)
        {
            this.m = m;
            cargaAleatoria();
        }
        public void cargaAleatoria()
        {
            Random rand = new Random();
            for (int i = 0; i < m.Length; i++)
            {
                m[i] = rand.Next(0, 30);
            }
        }
        public void mostrar()
        {
            foreach (var item in m)
            {
                Console.Write("" + item);
            }
        }
        public void multiplica_x_escalar(int n)
        {
            foreach (var item in m)
            {
                Console.Write("" + item * 2);

            }
        }
    }

    class MatrizCuadrada : IMAtriz
    {
        int[,] m;
        int l = 0;
        public MatrizCuadrada(int[,] m)
        {
            this.m = m;
            l = m.Length/2;
            Random rand = new Random();
            for (int i = 0; i < l; i++)
            {
                for (int j = 0; j < l; j++)
                {
                    m[i, j] = rand.Next(0, 30);
                }

            }
```

```
    }
    public void mostrar()
    {
        for (int i = 0; i < l; i++)
        {
            for (int j = 0; j < l; j++)
            {
                Console.Write("" + m[i, j].ToString("00"));

            }
            Console.WriteLine();
        }
    }
    public void multiplica_x_escalar(int n)
    {
        for (int i = 0; i < l; i++)
        {
            for (int j = 0; j < l; j++)
            {
                Console.Write("" + (n*m[i, j]).ToString("00"));

            }
            Console.WriteLine();
        }
    }
}
class Calcular
{
    IMAtriz a;
    public void multiplica_x2(IMAtriz a )
    {
        a.multiplica_x_escalar(2);
    }
}


 class Program
{
    static void Main(string[] args)
    {
        Console.WriteLine("\n<<<vector>>>\n");
        int[] m2 = new int[2];
        IMAtriz mat2 = new MatrizLineal(m2 );
        mat2.mostrar();
        Console.WriteLine("\n<<<vector multiplicado x2>>>\n");
        Calcular c2 = new Calcular();
        c2.multiplica_x2(mat2);
        Console.WriteLine("\n<<<MAtriz>>>\n");
        int[,]m = new int[2,2];
        IMAtriz mat = new MatrizCuadrada(m);
        mat.mostrar();
        Console.WriteLine("\n<<<matriz x2>>>\n");
        Calcular c = new Calcular();
        c.multiplica_x2(mat);
        Console.ReadLine();
```

```
        }
    }
}
```

```
**************************************************************************
* 3
```

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp25
{

    class matriz
    {
        int[] m = new int[10];
        public matriz() {

            Random rand = new Random();
            for (int i = 0; i < 10; i++)
            {
                m[i] = rand.Next(0,30);
            }
        }
        public void mostrar ()
        {
            foreach (var item in m )
            {
                Console.WriteLine(item);
            }
        }
    }
     class Program
    {
        static void Main(string[] args)
        {
            matriz mat= new matriz();
            mat.mostrar();
            Console.ReadLine();

        }
    }
}
```

```
**************************************************************************
* 4
```

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
```

```
namespace ConsoleApp25
{

    class Parcial
    {
        int c = 4;
        int b = 6;
        string s = "s";

        public void acumula()
        {
            while (s=="s")
            {
                if ((c >= b && c <= 9))
                {
                    Console.WriteLine("salida"+(c +=1));
                }
                else
                {
                    s = "n";
                }
            }
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            Parcial n = new Parcial();
            n.acumula();

        }
    }
}


**************************************************************************
* 5
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp25
{

    class Parcial
    {
        int c = 4;
        int b = 6;
        string s = "s";

        public void acumula()
        {
            while (true)
            {
                Console.WriteLine("salida" + (c += 1));
```

```
                if ((c >= b && c <= 9))
                {
                    break;
                }

            }
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            Parcial n = new Parcial();
            n.acumula();

        }
    }
}


*************************************************************************
* 6

using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp25
{

    class Parcial
    {
        int c = 4;
        int b = 6;
        string s = "s";

        public void acumula()
        {
            while (true)
            {
                Console.WriteLine("salida" + (c += 1));

                if ( c <= 9)
                {
                    break;
                }

            }
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            Parcial n = new Parcial();
```

```
            n.acumula();

        }
    }
}
```

```
*************************************************************************
* 7
```

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp25
{

    class MatrizLineal
    {
        int[] m;
        public MatrizLineal(int[] m)
        {
           this.m=m;
        }
        public void multiplica_x_escalar(int n)
        {
            for (int j = 0; j < m.Length; j++)
            {
                Console.Write(""+m[j]*2);
            }
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
         int[] m = new int[2];
            m[0] = 2;
            m[1] = m[0];
            MatrizLineal mat = new MatrizLineal(m);
            mat.multiplica_x_escalar(2);
            Console.ReadLine();
        }
    }
}
```

```
*************************************************************************
* 8
```

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
```

```
namespace ConsoleApp25
{

    class MatrizLineal
    {
        int[] m;
        public MatrizLineal(int[] m)
        {
           this.m=m;
        }
        public void multiplica_x_escalar(int n)
        {
            foreach(var item in m)
                {
                Console.Write(""+item*2);
            }
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
         int[] m = new int[2];
            m[0] = 2;
            m[1] = 3;
            MatrizLineal mat = new MatrizLineal(m);
            mat.multiplica_x_escalar(2);
            Console.ReadLine();
        }
    }
}



**********************************************************************
* 9
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp25
{

    class Parcial
    {
        int c = 4;
        int b = 6;
        string s = "s";

        public void acumula()
        {
            while (s=="s")
            {
                Console.WriteLine("salida" + (c += 1));
```

```
                if (c>=b && c <= 9)
                {
                    s="n";
                }

            }
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            Parcial n = new Parcial();
            n.acumula();

        }
    }
}
*************************************************************************
* 10


using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ConsoleApp25
{

    class Parcial
    {
        int c = 4;
        int b = 6;
        public void suma()
        {
            Console.WriteLine("salida"+ (c + b));
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            Parcial n = new Parcial();
            n.suma();

        }
    }
}
```