

```
using System;
```

```
namespace Practica37
```

```
{
```

```
    class Busqueda
```

```
    {
```

```
        private int[] vector;
```

```
        public void Cargar()
```

```
        {
```

```
            Console.WriteLine("Busqueda Binaria");
```

```
            Console.WriteLine("Ingrese 10 Elementos");
```

```
            string linea;
```

```
            vector = new int[10];
```

```
            for (int f = 0; f < vector.Length; f++)
```

```
            {
```

```
                Console.Write("Ingrese elemento " + (f + 1) + ": ");
```

```
                linea = Console.ReadLine();
```

```
                vector[f] = int.Parse(linea);
```

```
            }
```

```
        }
```

```
        public void busqueda(int num)
```

```
        {
```

```
            int l = 0, h = 9;
```

```
            int m = 0;
```

```
            bool found = false;
```

```
            while (l <= h && found == false)
```

```
            {
```

```
                m = (l + h) / 2;
```

```
                if (vector[m] == num)
```

```
                    found = true;
```

```
                if (vector[m] > num)
```

```
                    h = m - 1;
```

```
                else
```

```
                    l = m + 1;
```

```
            }
```

```
            if (found == false)
```

```
            { Console.WriteLine("\nEl elemento {0} no esta en el arreglo", num); }
```

```
            else
```

```
            { Console.WriteLine("\nEl elemento {0} esta en la posicion: {1}", num, m + 1); }
```

```
        }
```

```
        public void Imprimir()
```

```
        {
```

```
        for (int f = 0; f < vector.Length; f++)
        {
            Console.Write(vector[f] + " ");
        }
    }

    static void Main(string[] args)
    {
        Busqueda pv = new Busqueda();
        pv.Cargar();
        pv.Imprimir();
        Console.WriteLine("\n\nElemento a buscar: ");
        int num = int.Parse(Console.ReadLine());
        pv.busqueda(num);
        Console.ReadKey();
    }
}
```