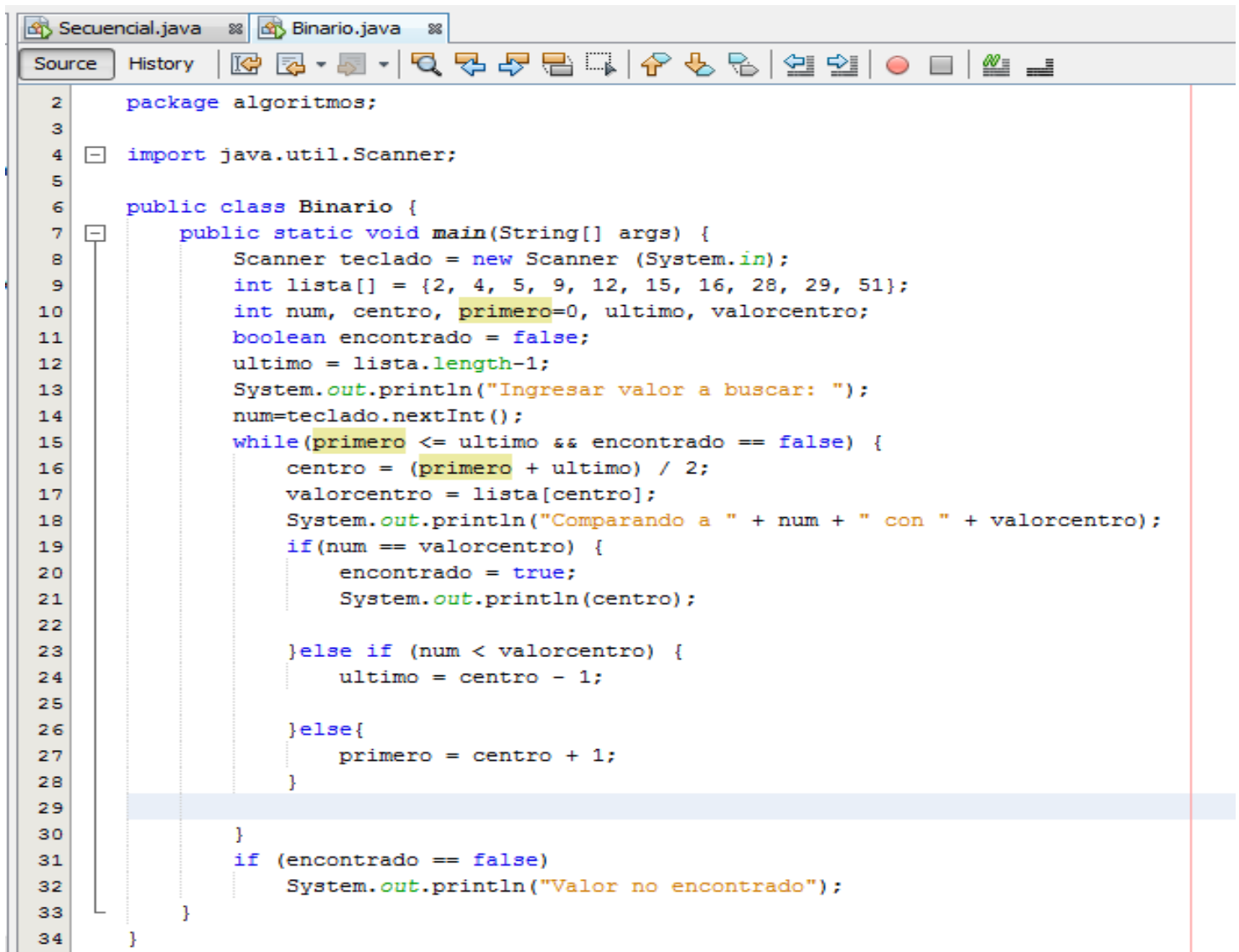


ALGORITMO BUSQUEDA BINARIA



The screenshot shows an IDE window with two tabs: 'Secuencial.java' and 'Binario.java'. The 'Binario.java' tab is active, displaying a Java program for binary search. The code is as follows:

```
2 package algoritmos;
3
4 import java.util.Scanner;
5
6 public class Binario {
7     public static void main(String[] args) {
8         Scanner teclado = new Scanner (System.in);
9         int lista[] = {2, 4, 5, 9, 12, 15, 16, 28, 29, 51};
10        int num, centro, primero=0, ultimo, valorcentro;
11        boolean encontrado = false;
12        ultimo = lista.length-1;
13        System.out.println("Ingresar valor a buscar: ");
14        num=teclado.nextInt();
15        while(primero <= ultimo && encontrado == false) {
16            centro = (primero + ultimo) / 2;
17            valorcentro = lista[centro];
18            System.out.println("Comparando a " + num + " con " + valorcentro);
19            if(num == valorcentro) {
20                encontrado = true;
21                System.out.println(centro);
22            }
23            }else if (num < valorcentro) {
24                ultimo = centro - 1;
25            }
26            }else{
27                primero = centro + 1;
28            }
29        }
30    }
31    if (encontrado == false)
32        System.out.println("Valor no encontrado");
33 }
34 }
```

Output - ED_03 (run-single)

```
ant -f "C:\Users\Victor\Documents\Untels\LP 1\Proyectos\ED - 03" -Dnb.internal.action.name=run.single -Djavac.includes=algoritmos/Binario
init:
Deleting: C:\Users\Victor\Documents\Untels\LP 1\Proyectos\ED - 03\build\build-jar.properties
deps-jar:
Updating property file: C:\Users\Victor\Documents\Untels\LP 1\Proyectos\ED - 03\build\build-jar.properties
Compiling 1 source file to C:\Users\Victor\Documents\Untels\LP 1\Proyectos\ED - 03\build\classes
compile-single:
run-single:
Ingresar valor a buscar:
29
Comparando a 29 con 12
Comparando a 29 con 28
Comparando a 29 con 29
8
BUILD SUCCESSFUL (total time: 15 seconds)
```

Output

1

29:13

INS