

Manual de Diagramas de Flujo

Instructor: Andrés Moreno Collazos

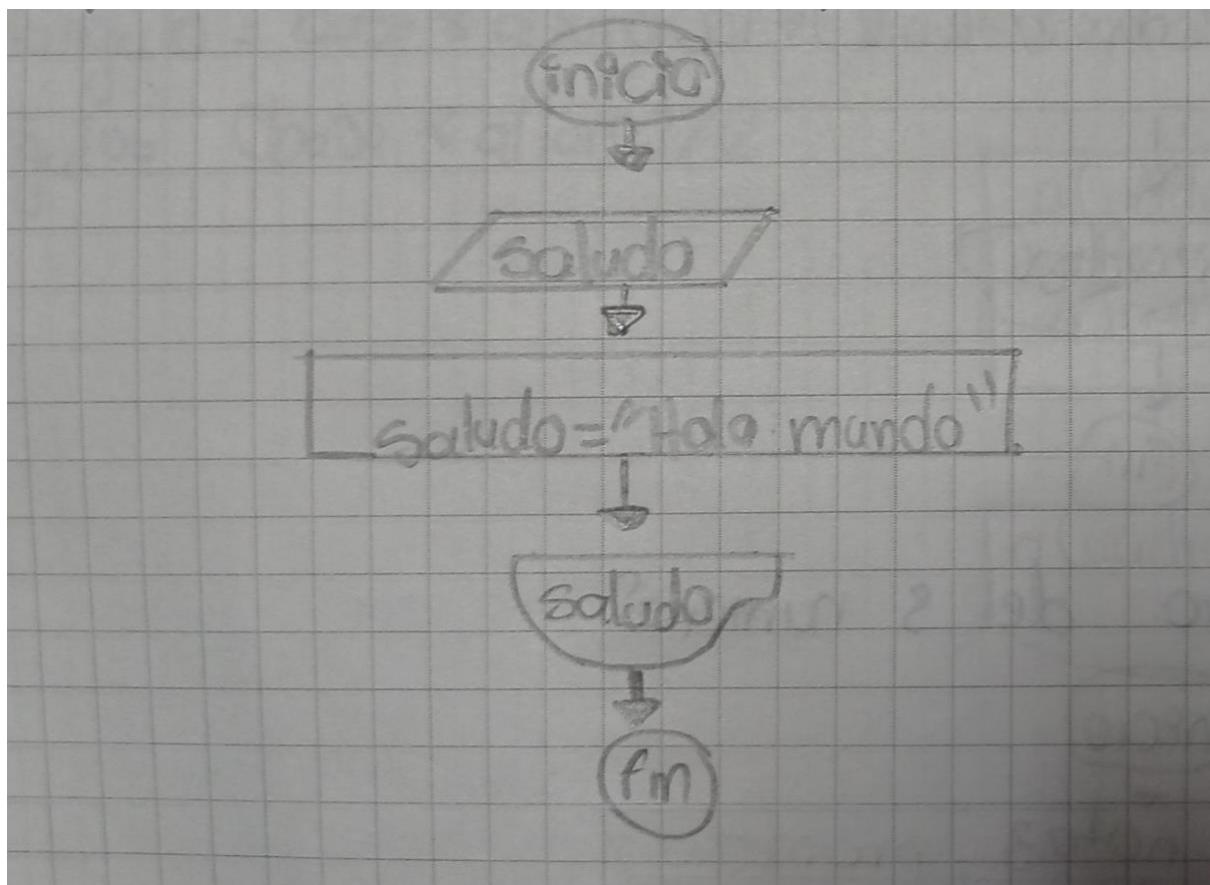
Aprendiz: Karol Viviana Pastrana Pastrana

Formación técnica: Tecnólogo en Análisis y Desarrollo de Software

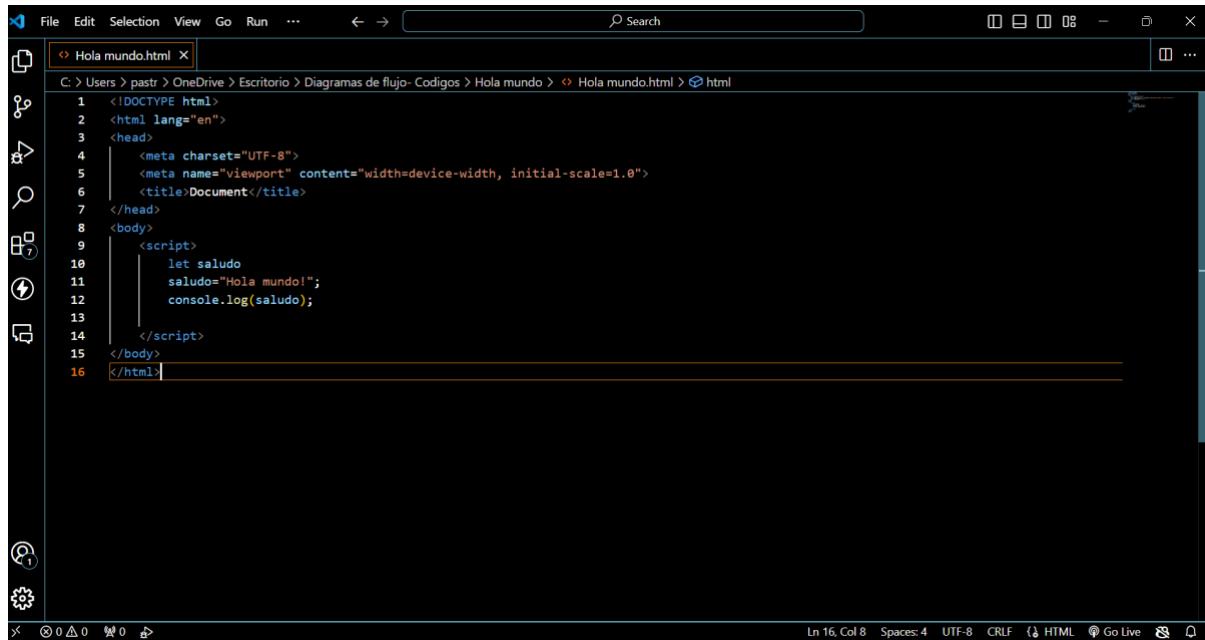
Ficha: 2899747

Ejercicio1

Diagrama de flujo:



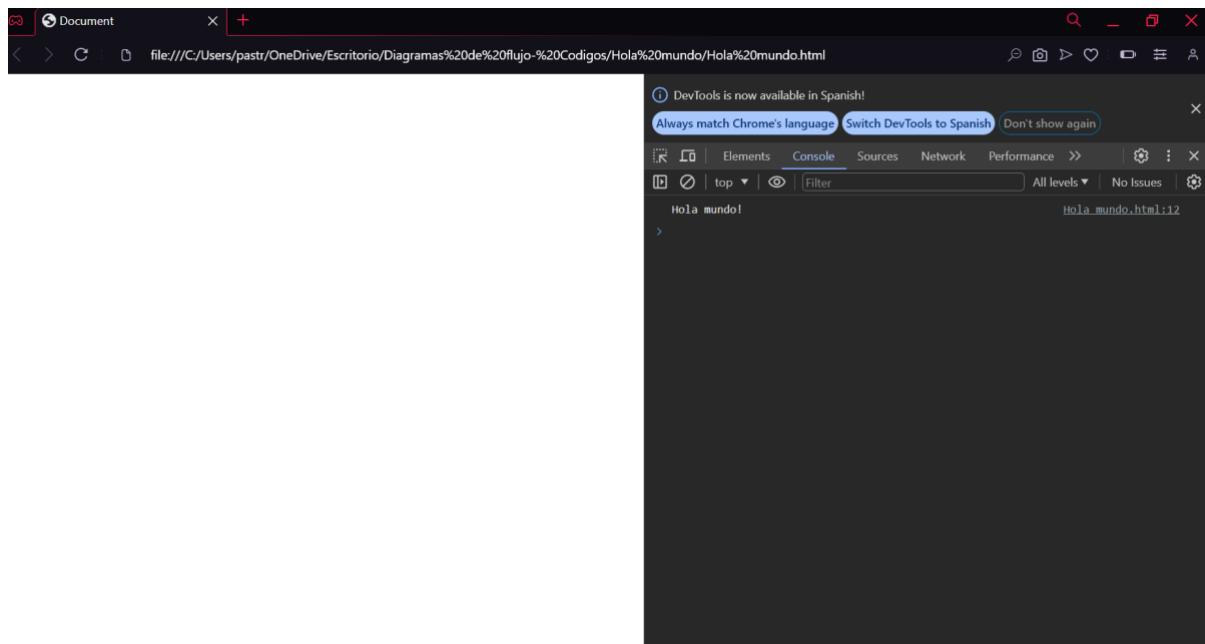
Código:



```
File Edit Selection View Go Run ... ← → ⌘ Search
C: > Users > pastr > OneDrive > Escritorio > Diagramas de flujo- Códigos > Hola mundo > Hola mundo.html > html
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Document</title>
7  </head>
8  <body>
9      <script>
10         let saludo
11         saludo="Hola mundo!";
12         console.log(saludo);
13
14     </script>
15  </body>
16 </html>
```

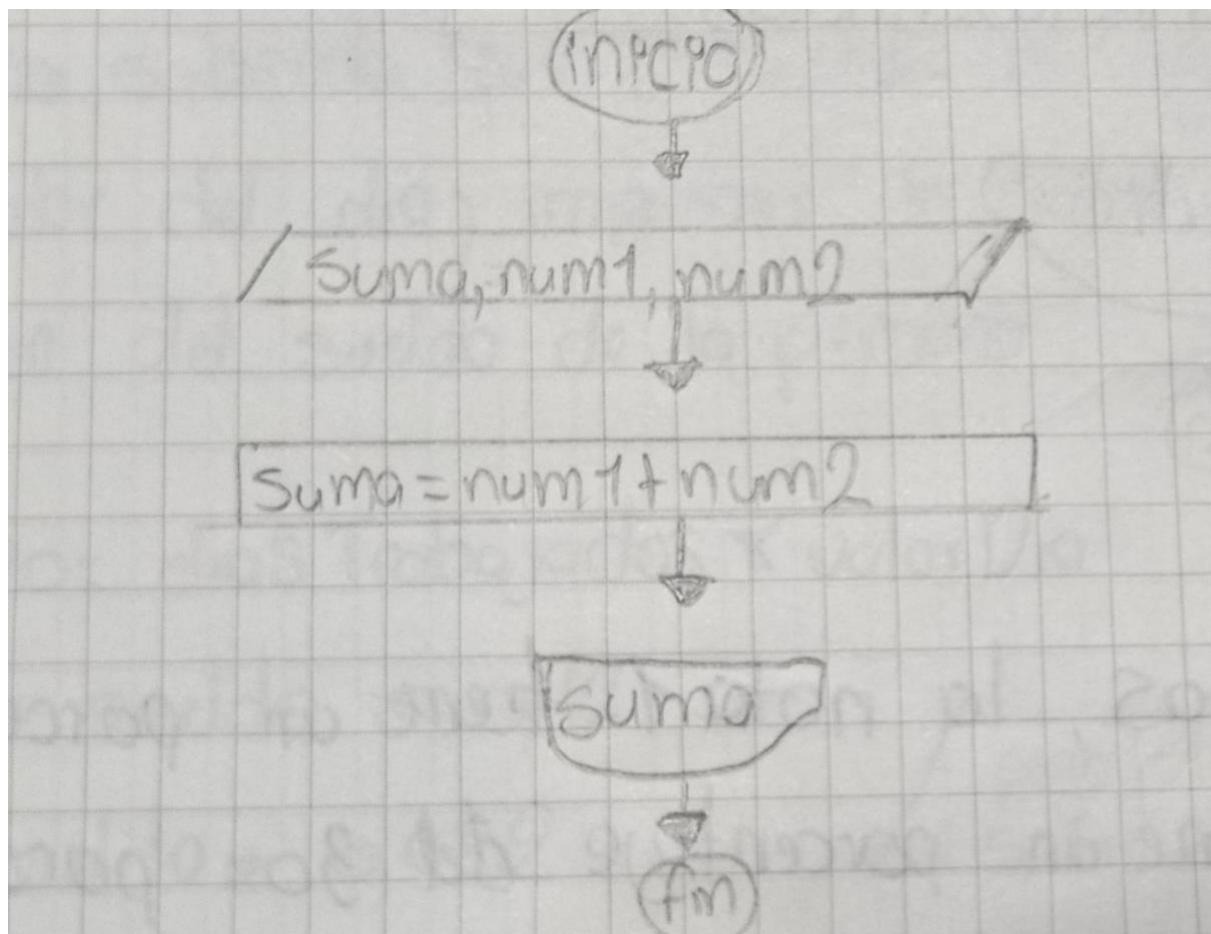
Ln 16, Col 8 Spaces: 4 UTF-8 CRLF ⓘ HTML ⚡ Go Live

Pantalla:



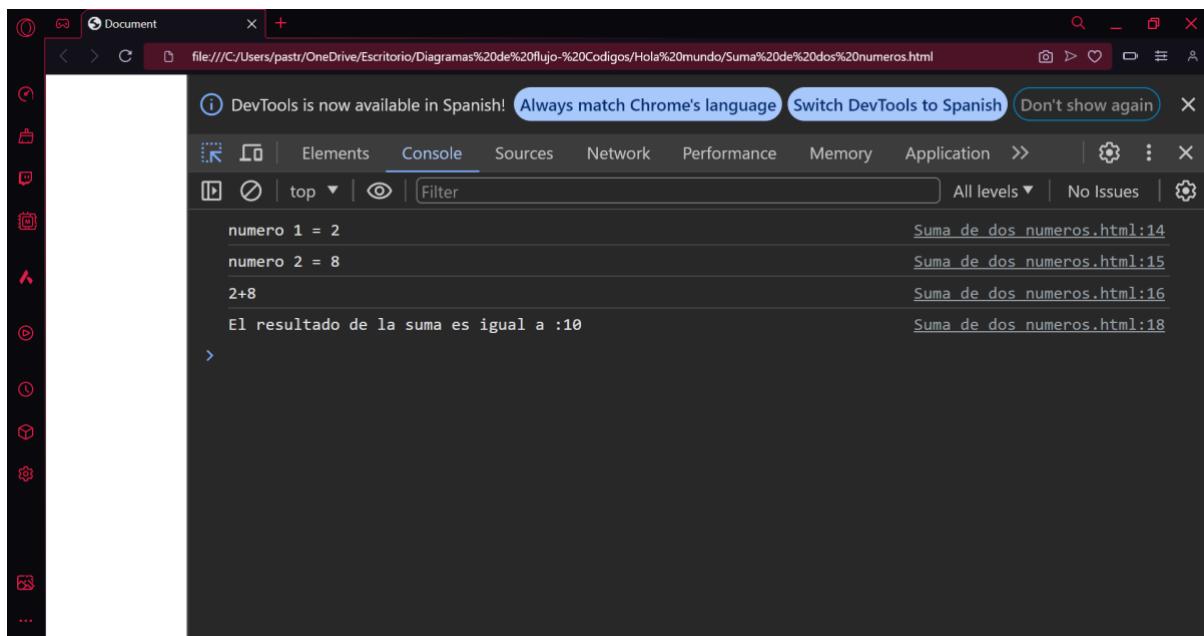
Ejercicio 2:

Diagrama de flujo:



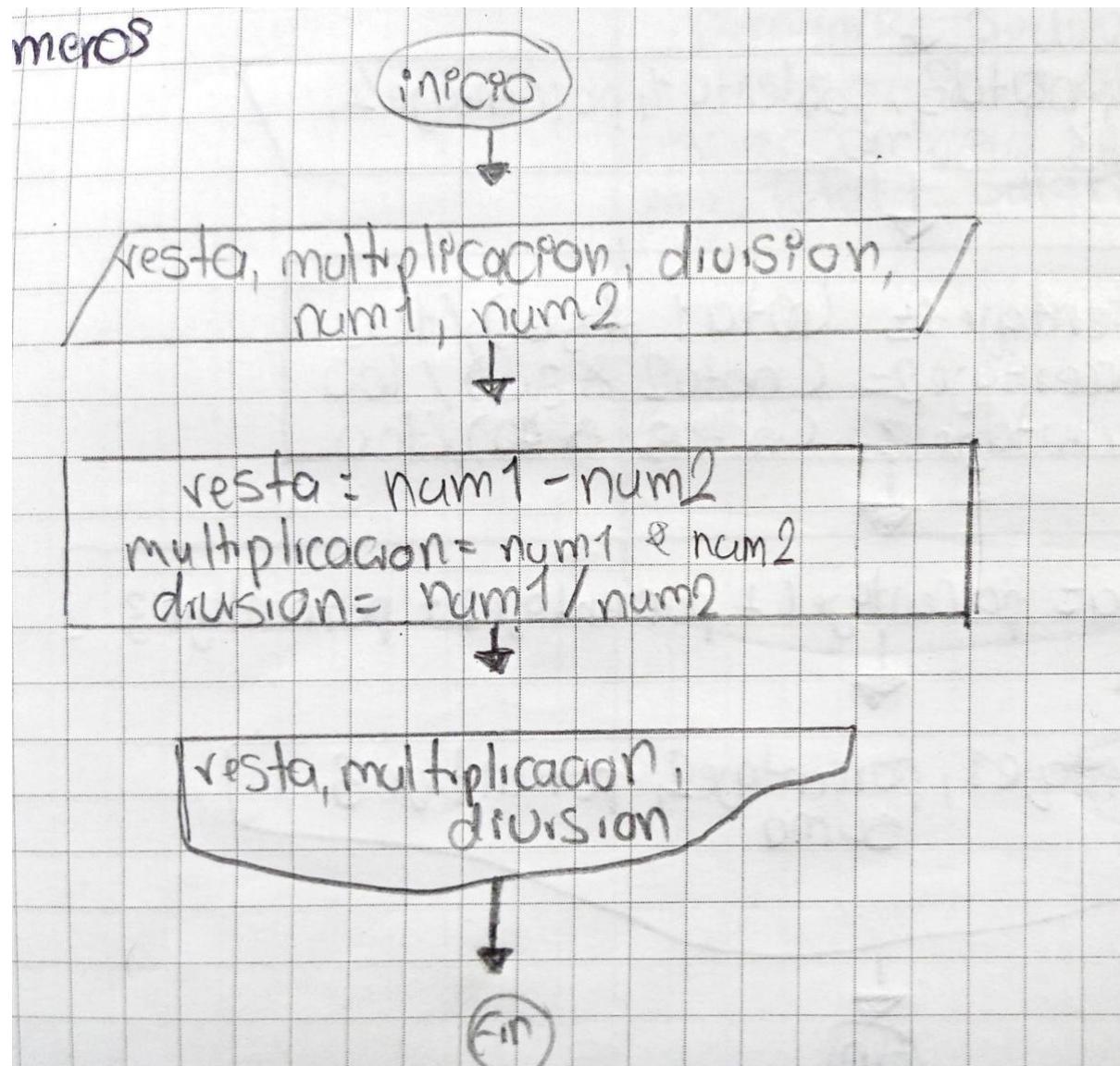
Código:

Pantalla:

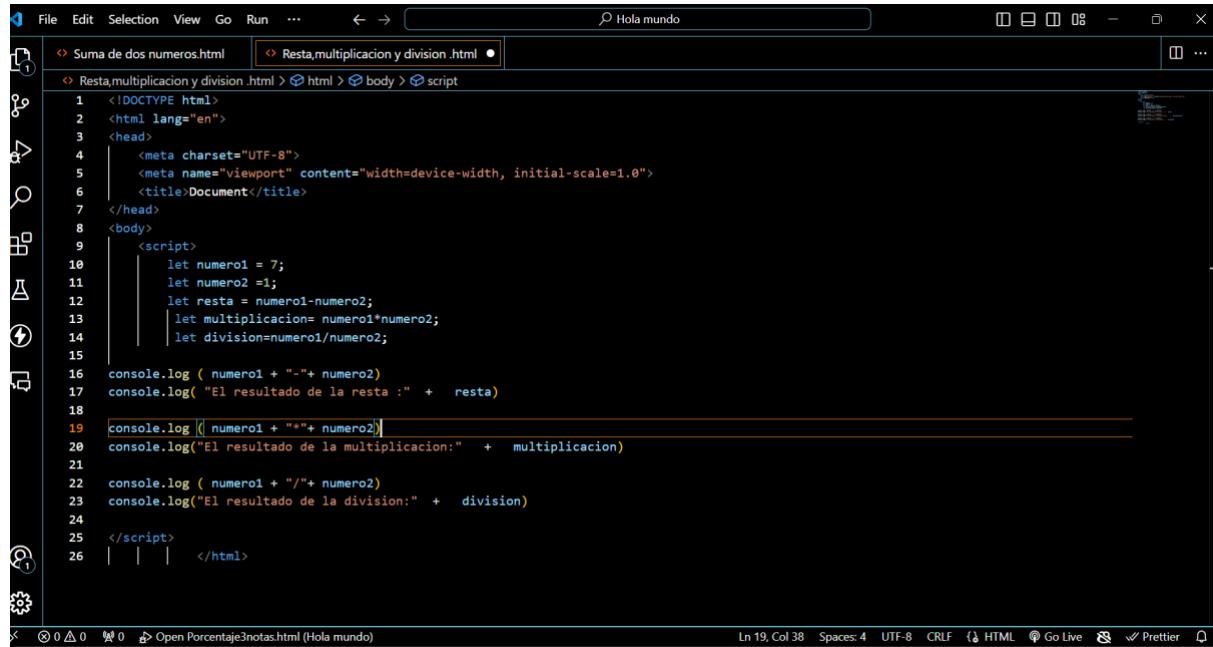


Ejercicio3:

Diagrama de flujo:



Código:

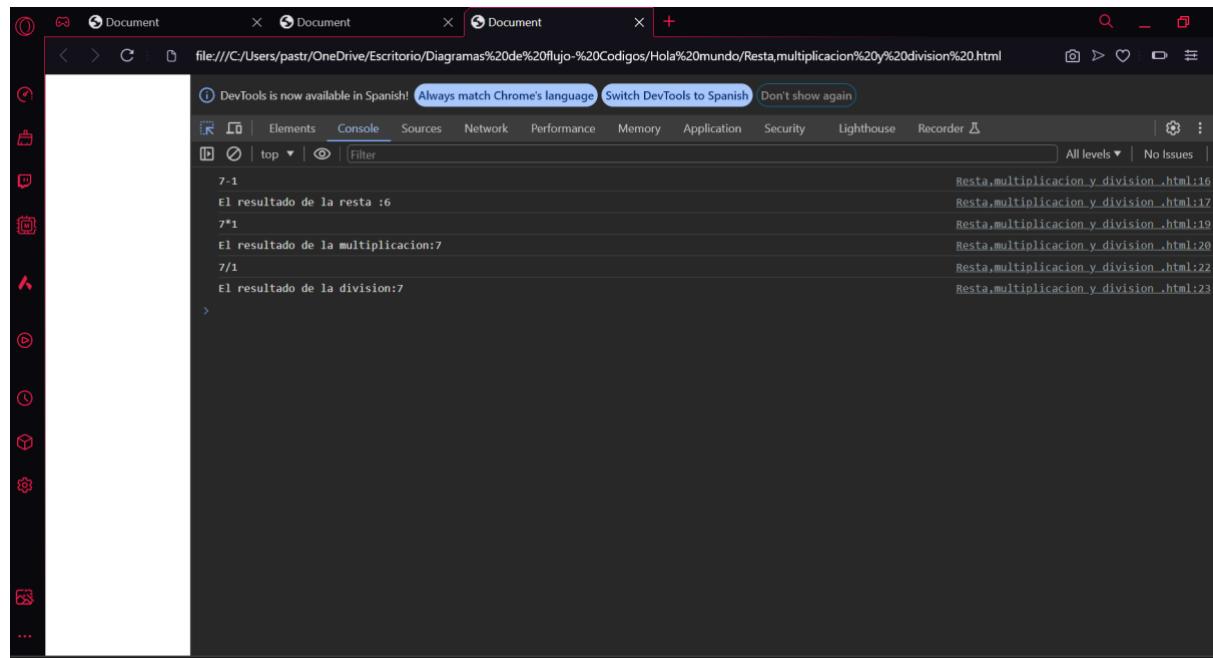


```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let numero1 = 7;
        let numero2 =1;
        let resta = numero1-numero2;
        let multiplicacion= numero1*numero2;
        let division=numero1/numero2;

        console.log ( numero1 + "-" + numero2)
        console.log( "El resultado de la resta :" +    resta)
        console.log ([ numero1 + "*" + numero2])
        console.log("El resultado de la multiplicacion:" +    multiplicacion)

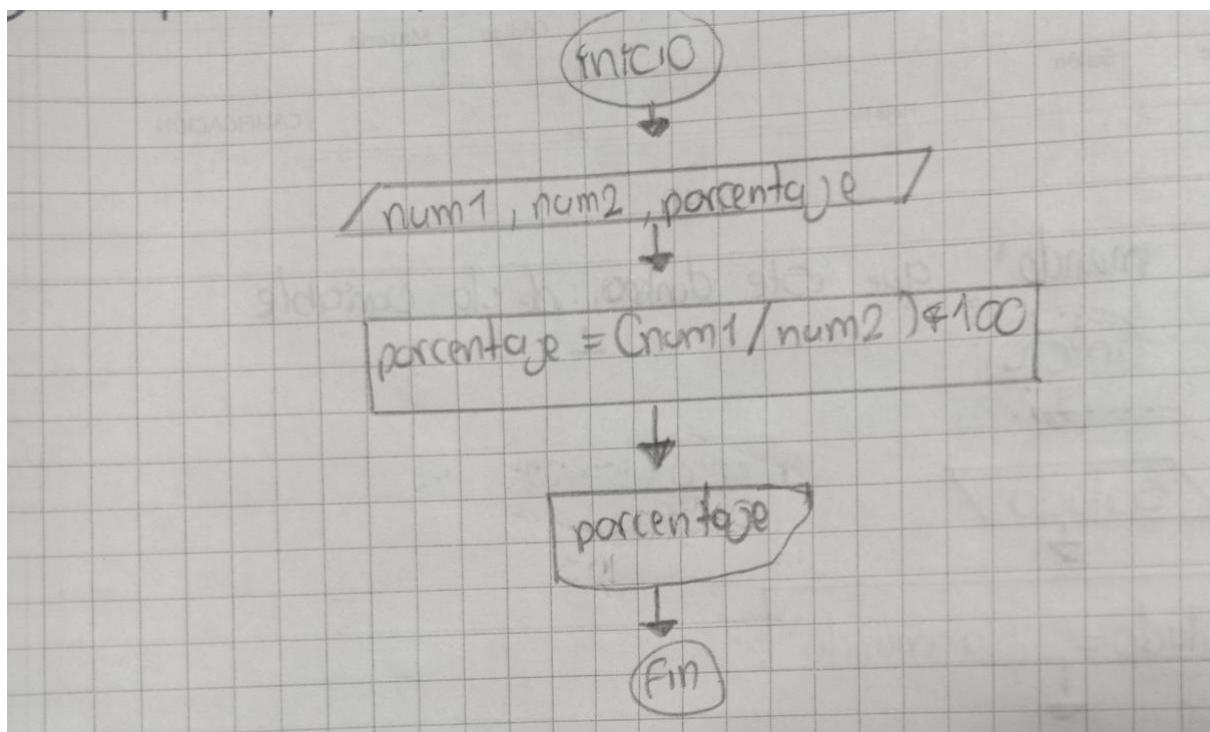
        console.log ( numero1 + "/" + numero2)
        console.log("El resultado de la division:" +    division)
    </script>
</body>
</html>
```

Pantalla:



Ejercicio4:

Diagrama de flujo:



Código:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let numero1 = 7;
        let numero2 = 6;
        let porcentaje = (numero1 / numero2) * 100;
        console.log ("Numero 1 = " + numero1);
        console.log ("Numero 2 = " + numero2);
        console.log("El porcentaje entre los dos numeros es el siguiente:" + porcentaje.toFixed(2) + "%");
    </script>
</body>
</html>
```

Pantalla:

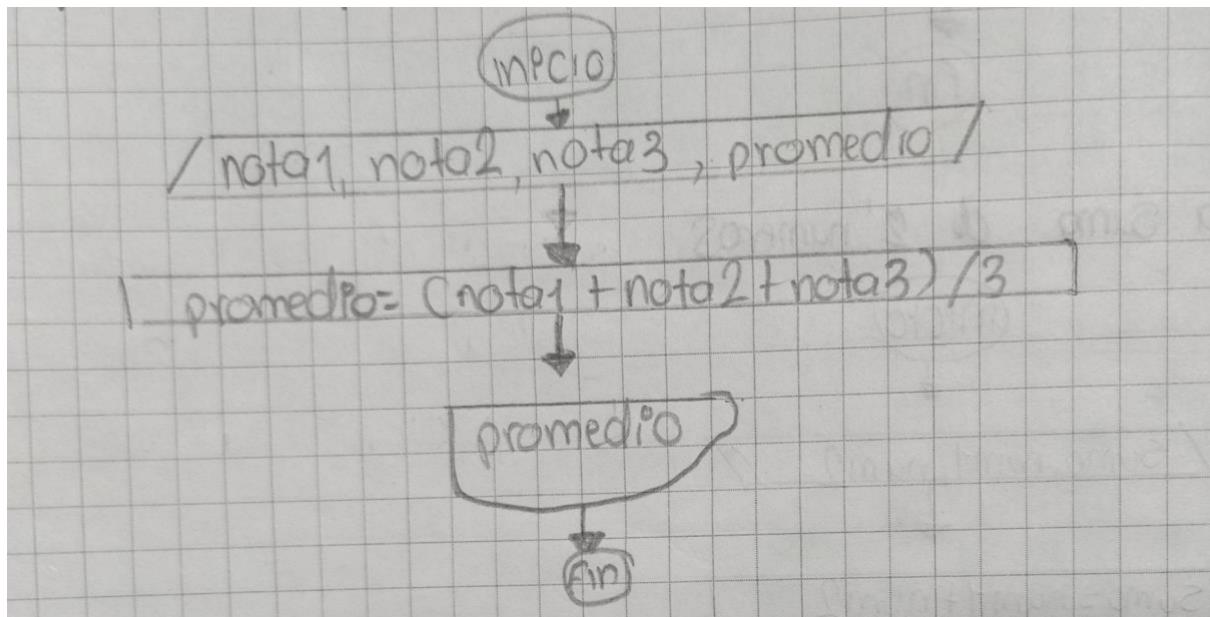
The screenshot shows a browser's developer tools with the "Console" tab selected. The output window displays the following text:

```
Numero 1 = 7
Numero 2 = 6
El porcentaje entre los dos numeros es el siguiente:116.67%
```

Below the output, the file path is shown three times: "porcentaje.html:13", "porcentaje.html:14", and "porcentaje.html:15".

Ejercicio5:

Diagrama de flujo:



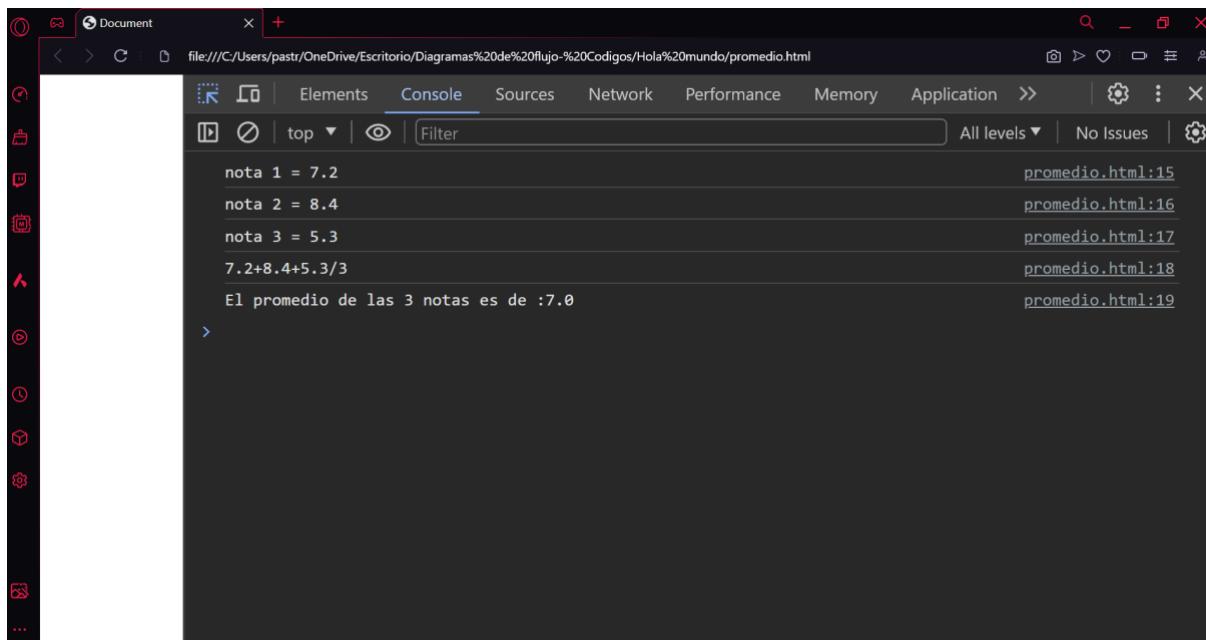
Código:

The screenshot shows a code editor window with a dark theme. The title bar reads "File Edit Selection View Go Run ...". The search bar says "Diagramas de flujo- Códigos". The left sidebar has icons for file operations like Open, Save, Find, and Refresh. The main area displays the following code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let nota1 = 7.2;
        let nota2 = 8.4;
        let nota3 = 5.3;
        let promedio;
        promedio = (nota1+nota2+nota3)/3;
        console.log("nota 1 = "+ nota1);
        console.log ("nota 2 = "+ nota2);
        | console.log ( "nota 3 = "+ nota3);
        console.log((nota1 +"+"+ nota2+"+"+ nota3)"/"+3);
        console.log("El promedio de las 3 notas es de :"+ promedio.toFixed(1));
    </script>
</body>
</html>
```

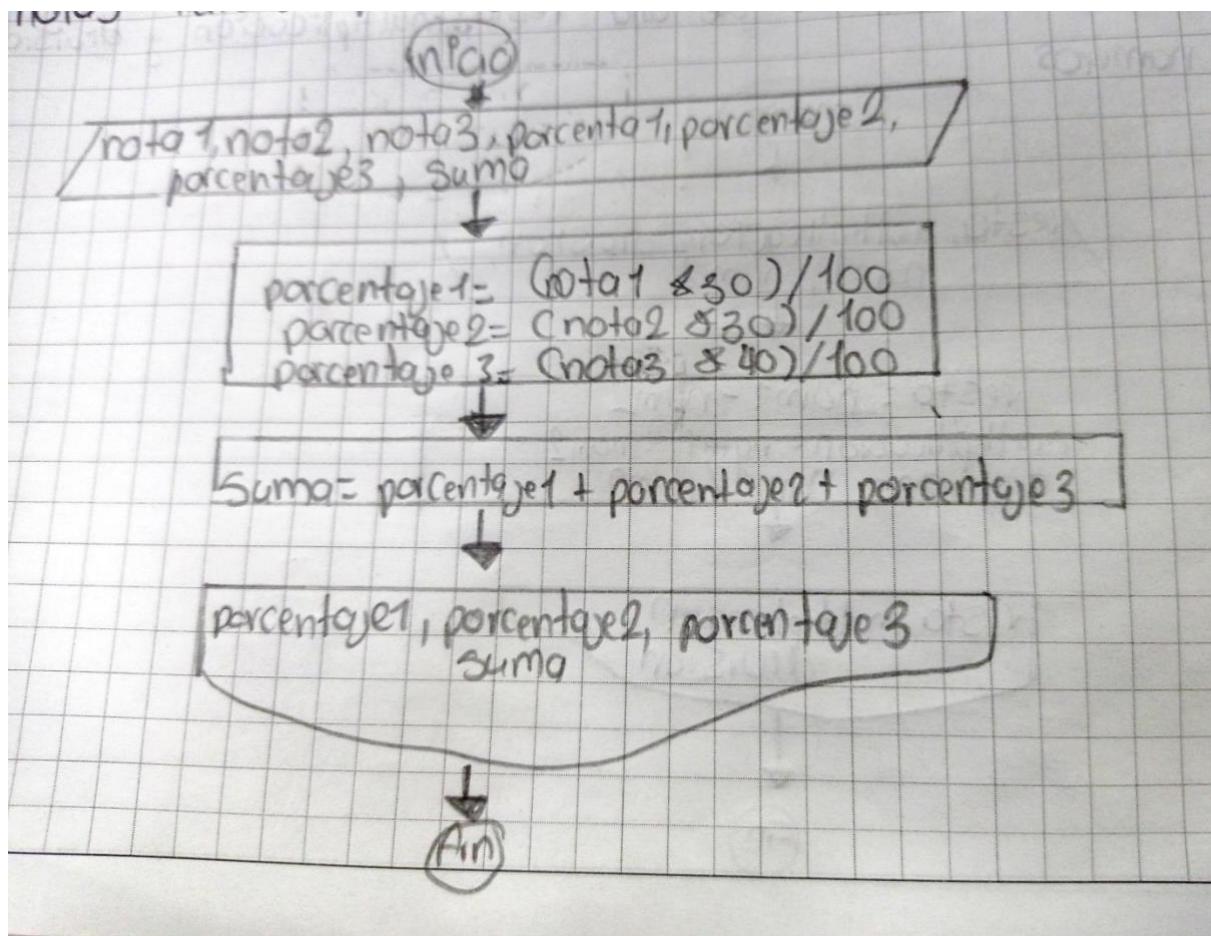
At the bottom, status bars show "Ln 25, Col 1", "Spaces: 4", "UTF-8", "CRLF", "HTML", "Go Live", "Prettier", and a file icon.

Pantalla:



Ejercicio 6:

Diagrama de flujo:



Código:

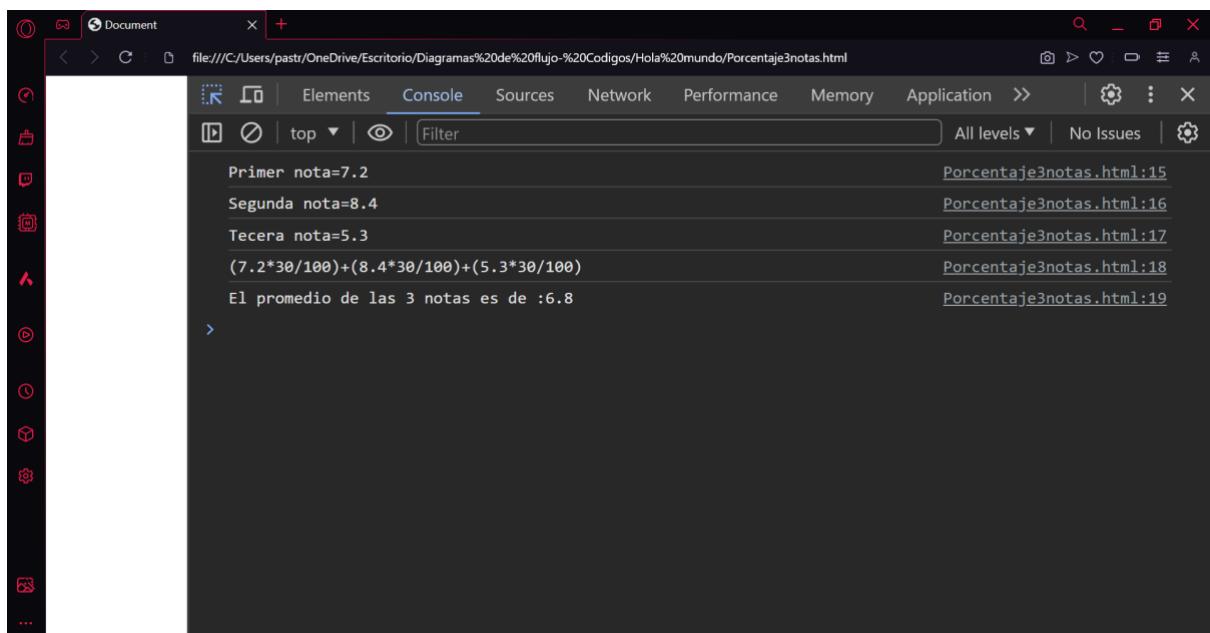
The screenshot shows a code editor interface with a dark theme. The top menu bar includes File, Edit, Selection, View, Go, Run, and other options. A search bar at the top right contains the text "Hola mundo". The left sidebar has various icons for file operations like Open, Save, Find, and others. The main workspace displays an HTML file named "Porcentaje3notas.html". The code is as follows:

```
1 <html lang="en">
2   <head>
3     <meta charset="UTF-8">
4     <meta name="viewport" content="width=device-width, initial-scale=1.0">
5     <title>Document</title>
6   </head>
7   <body>
8     <script>
9       let nota1 = 7.2;
10      let nota2 = 8.4;
11      let nota3 = 5.3;
12      let porcentajeNotas;
13
14      porcentajeNotas= (nota1*30)/100+(nota2*30)/100+(nota3*40)/100
15      console.log("Primer nota" + "=" + nota1)
16      console.log("Segunda nota" + "=" + nota2)
17      console.log("Tercera nota" + "=" + nota3)
18      console.log("(" + nota1 + "*" + 30 + "/" + 100 + ")" + "+" + "(" + nota2 + "*" + 30 + "/" + 100 + ")" + "+" + "(" + nota3 + "*" + 30 + "/" + 100 + ")" );
19      console.log("El promedio de las 3 notas es :" + porcentajeNotas)
20
21
22
23     </script>
24   </body>

```

At the bottom of the editor, status bars show "Ln 24, Col 20", "Spaces: 4", "UTF-8", "CRLF", "HTML", "Go Live", "Prettier", and a file icon.

Pantalla:



Ejercicio 7:

Diagrama de flujo:

cuenta que:

Inicio

/ a Cuadrado, a Rectangulo, a Triangulo,
lado, base, altura



$$a \text{ Cuadrado} = \text{lado} \times \text{lado}$$

$$a \text{ Rectangulo} = \text{base} \times \text{altura}$$

$$a \text{ Triangulo} = (\text{base} \times \text{altura})/2$$



a Cuadrado, a Rectangulo, a Triangulo



Fin

Código:

The screenshot shows a code editor window with the file 'Areas.html' open. The code contains JavaScript that calculates the area of a square, rectangle, and triangle based on user input. The output of the console.log statements is visible at the bottom of the code editor.

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
<script>
let lado =4;
let base=5;
let altura=9;
let acuadrado;
let aRectangulo;
let aTriangulo;
acuadrado=lado*lado
aRectangulo=base*altura
aTriangulo=(base*altura)/2
console.log("Formula para hallar el area del cuadrado= lado * lado")
console.log( lado +"** "+lado)
console.log("Area Cuadrado" + "=" +acuadrado)

console.log("Formula para hallar el area del rectangulo= base*altura")
console.log(base +"*"+altura)
console.log("Area Rectangulo" + "=" + aRectangulo)

console.log("Formula para hallar el area del triangulo= base*altura"/2)
console.log(base +"*"+ altura+ "/ 2")
console.log("Area Triangulo" + "=" + aTriangulo)

</script>
</body>
</html>
```

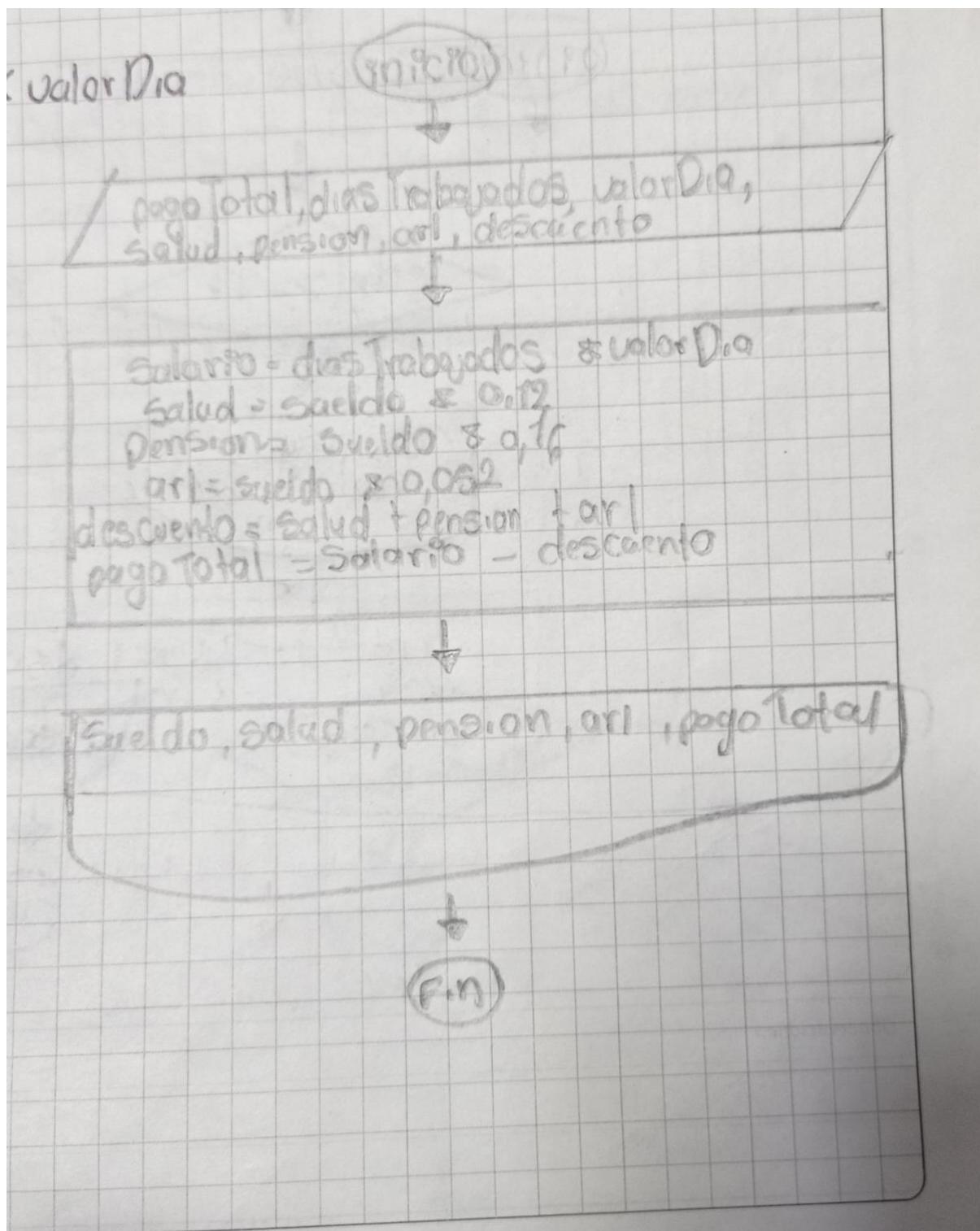
Pantalla:

The screenshot shows the 'Console' tab of the browser developer tools. It displays the same console.log output as the code editor, showing the calculations for the area of a square, rectangle, and triangle.

Output	File	Line
Formula para hallar el area del cuadrado= lado * lado	Areas.html	:19
4*4	Areas.html	:20
Area Cuadrado=16	Areas.html	:21
Formula para hallar el area del rectangulo= base*altura	Areas.html	:23
5*9	Areas.html	:24
Area Rectangulo=45	Areas.html	:25
Formula para hallar el area del triangulo= base*altura/2	Areas.html	:27
5*9/ 2	Areas.html	:28
Area Triangulo=22.5	Areas.html	:29

Ejercicio 8:

Diagrama de flujo:



Código:

The screenshot shows a code editor window with the following code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
<script>
    let pagoTotal;
    let diasTrabajados = 28;
    let valorDia = 100000;
    let sueldo;
    let salario;
    let arl;
    let pension;
    let salud;
    let descuento;

    sueldo = diasTrabajados * valorDia;
    salud = sueldo * 0.12;
    pension = sueldo * 0.16;
    arl = sueldo * 0.052;
    descuento = salud + pension + arl;
    pagoTotal = sueldo - descuento;

    console.log("sueldo = " + sueldo);
    console.log("salud = " + salud);
    console.log("pension = " + pension);
    console.log("arl = " + arl);
    console.log("El pago total que recibe el empleado es de = " + pagoTotal);
</script>
</body>
</html>
```

At the bottom of the editor, there are status indicators: Line 35, Column 8, Spaces: 4, UTF-8, CRLF, Go Live, and Prettier.

Pantalla:

The screenshot shows the Chrome DevTools Console tab with the following log outputs:

```
sueldo = 2800000
salud = 336000
pension = 448000
arl = 145600
El pago total que recibe el empleado es de = 1870400
```

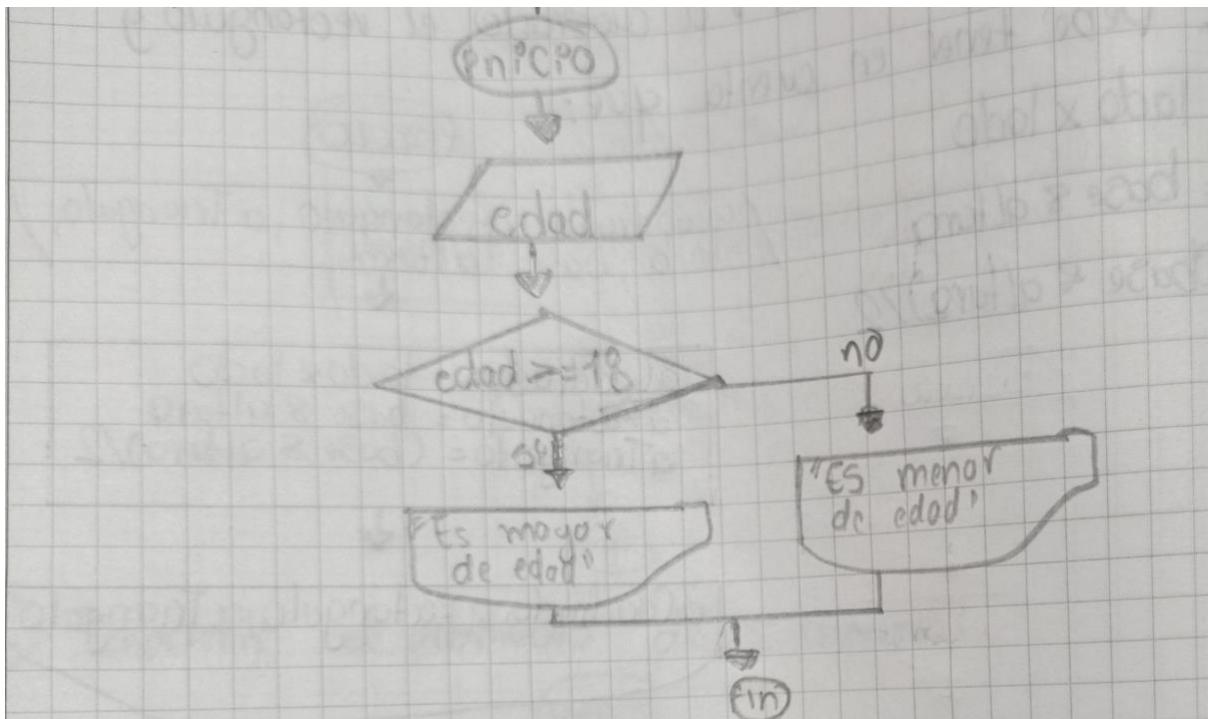
The log entries are timestamped with the file name and line number:

- Pago_total.html:28
- Pago_total.html:29
- Pago_total.html:30
- Pago_total.html:31
- Pago_total.html:32

Condicionales:

Ejercicio 1:

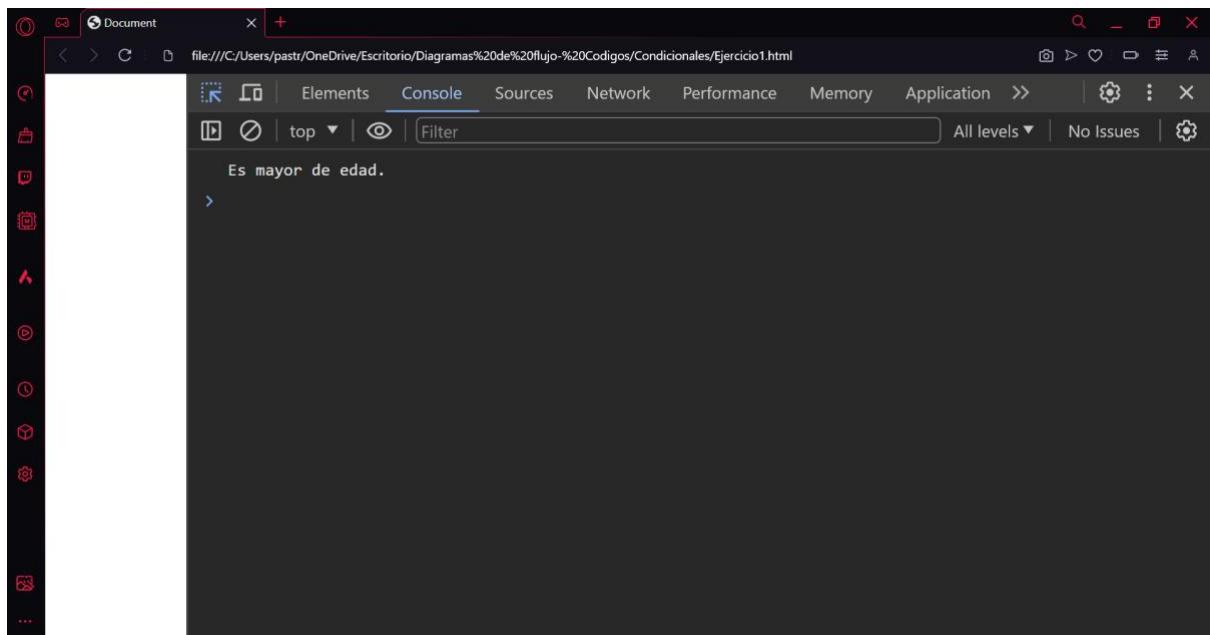
Diagrama de flujo:



Código:

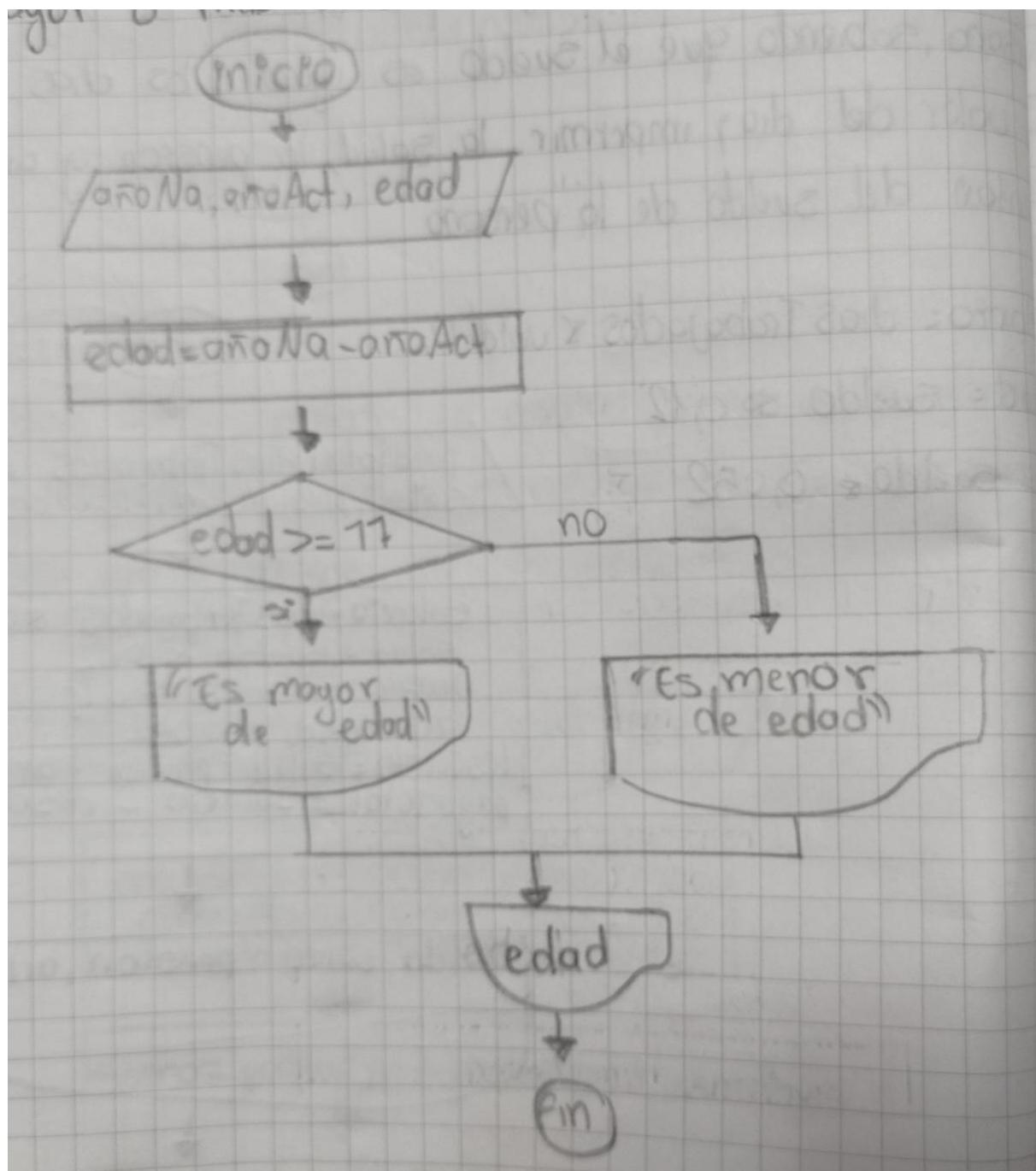
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let edad=21;
        if (edad > 18) {
            console.log("Es mayor de edad.");
        } else{
            console.log("Es menor de edad.");
        }
    </script>
</body>
</html>
```

Pantalla:

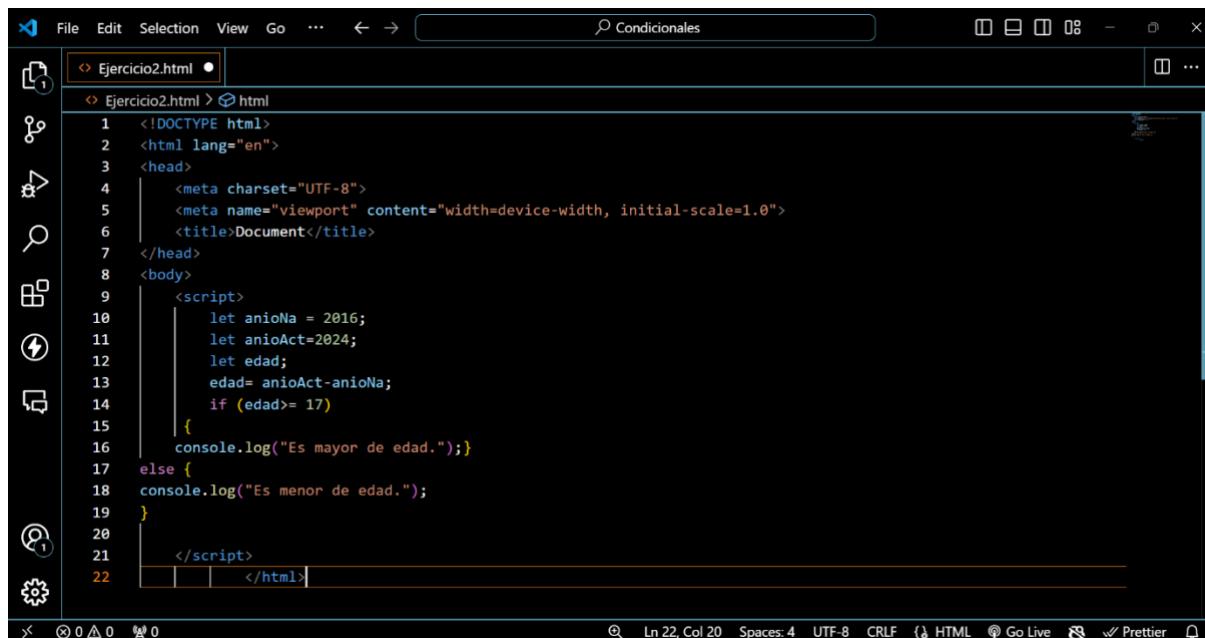


Ejercicio2:

Diagrama de flujo:

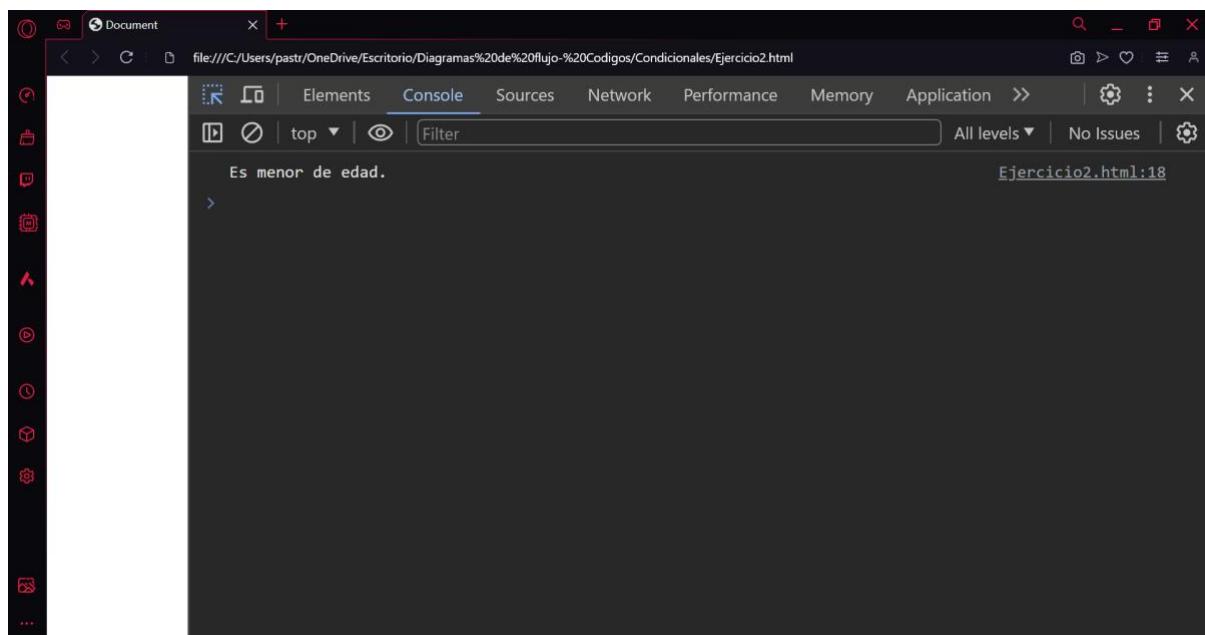


Código:



```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let anioNa = 2016;
        let anioAct=2024;
        let edad;
        edad= anioAct-anioNa;
        if (edad>= 17)
        {
            console.log("Es mayor de edad.");
        }
        else {
            console.log("Es menor de edad.");
        }
    </script>
</body>
</html>
```

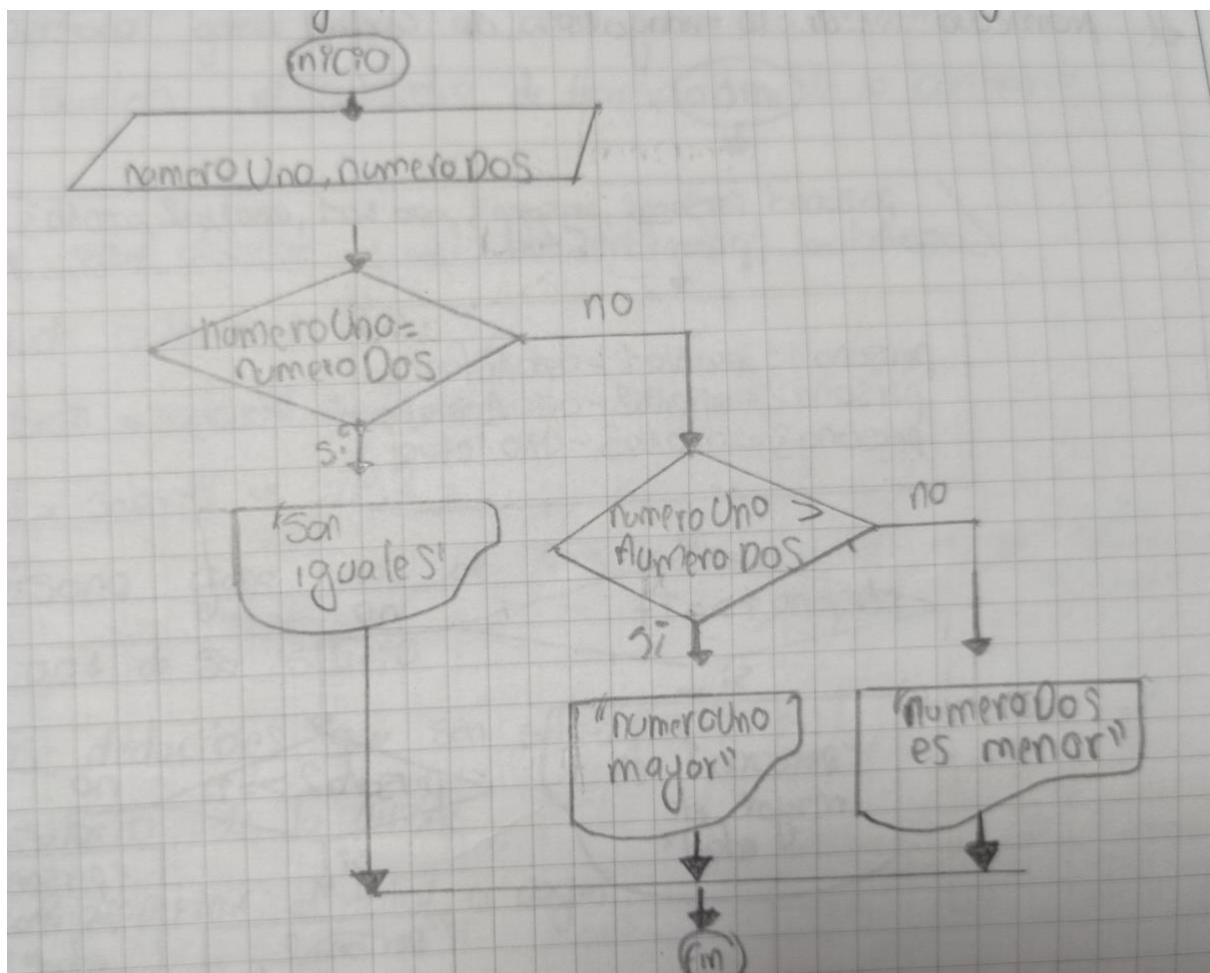
Pantalla:



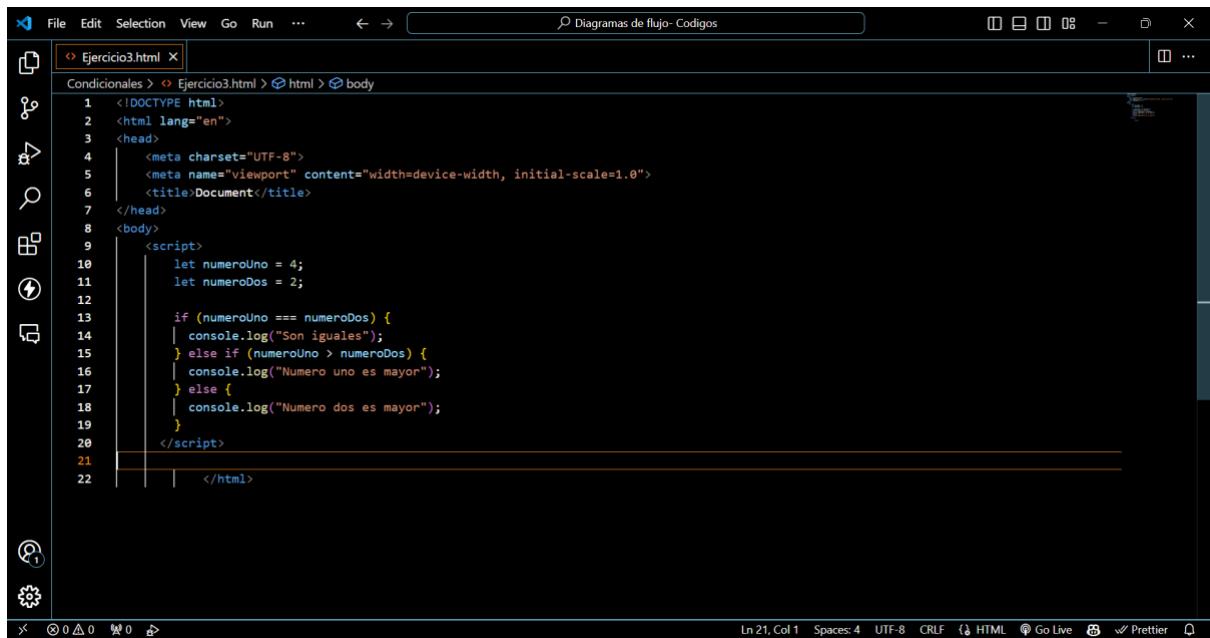
```
file:///C:/Users/pastr/OneDrive/Escritorio/Diagramas%20de%20flujo-%20Códigos/Condicionales/Ejercicio2.html
Ejercicio2.html:18
```

Ejercicio3:

Diagrama de flujo:



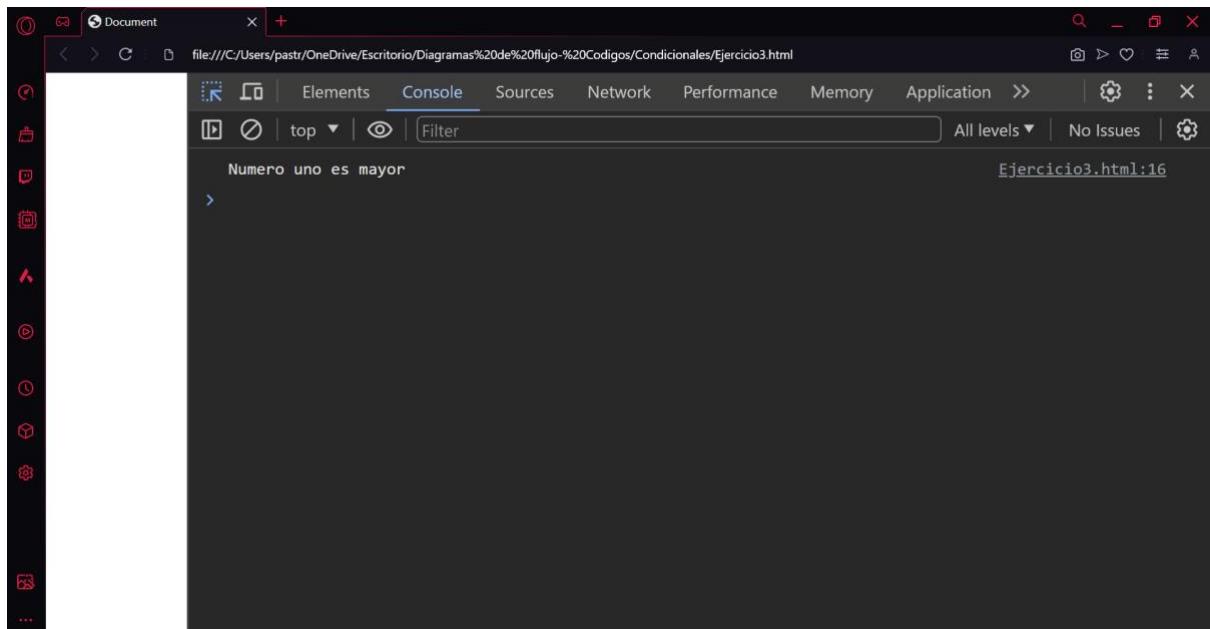
Código:



```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let numeroUno = 4;
        let numeroDos = 2;

        if (numeroUno === numeroDos) {
            console.log("Son iguales");
        } else if (numeroUno > numeroDos) {
            console.log("Número uno es mayor");
        } else {
            console.log("Número dos es mayor");
        }
    </script>
</body>
</html>
```

Pantalla:



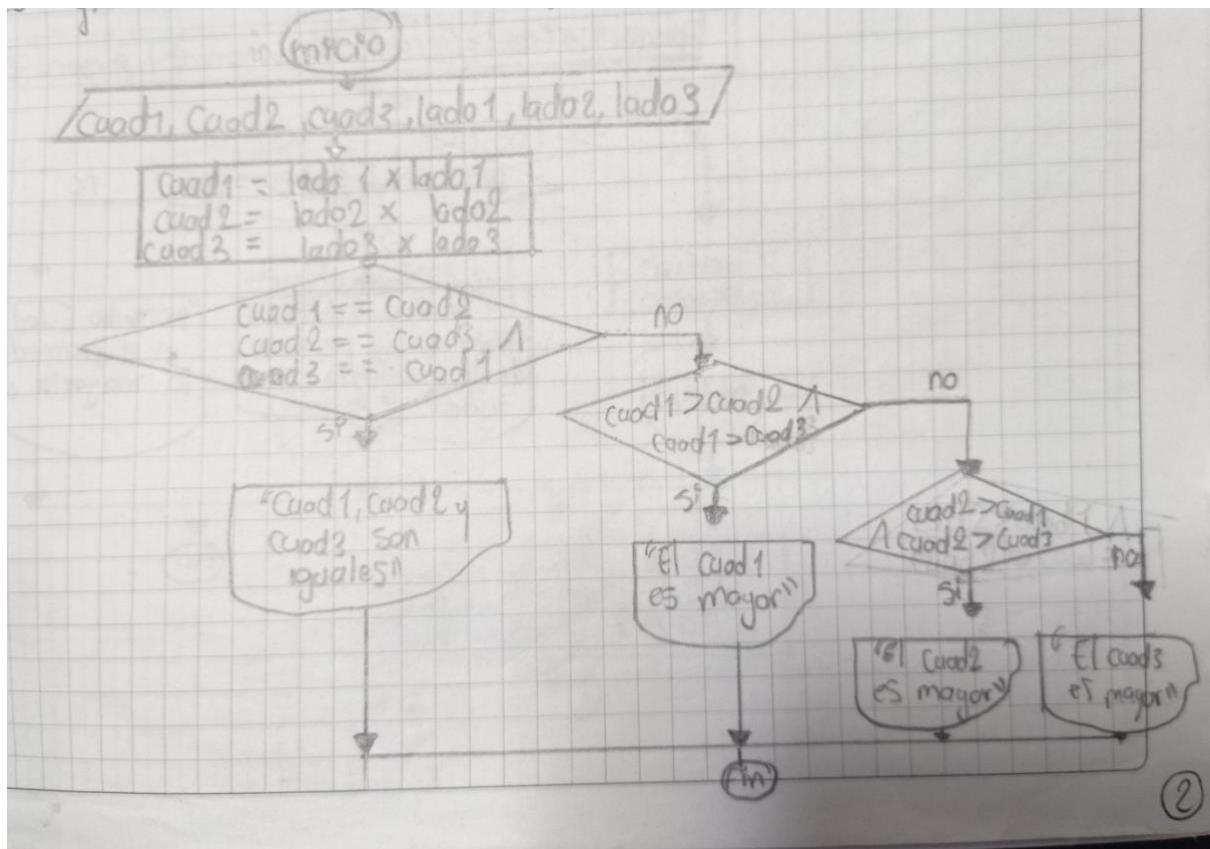
file:///C:/Users/pastr/OneDrive/Escritorio/Diagramas%20de%20flujo-%20Códigos/Condicionales/Ejercicio3.html

Numero uno es mayor

Ejercicio3.html:16

Ejercicio4:

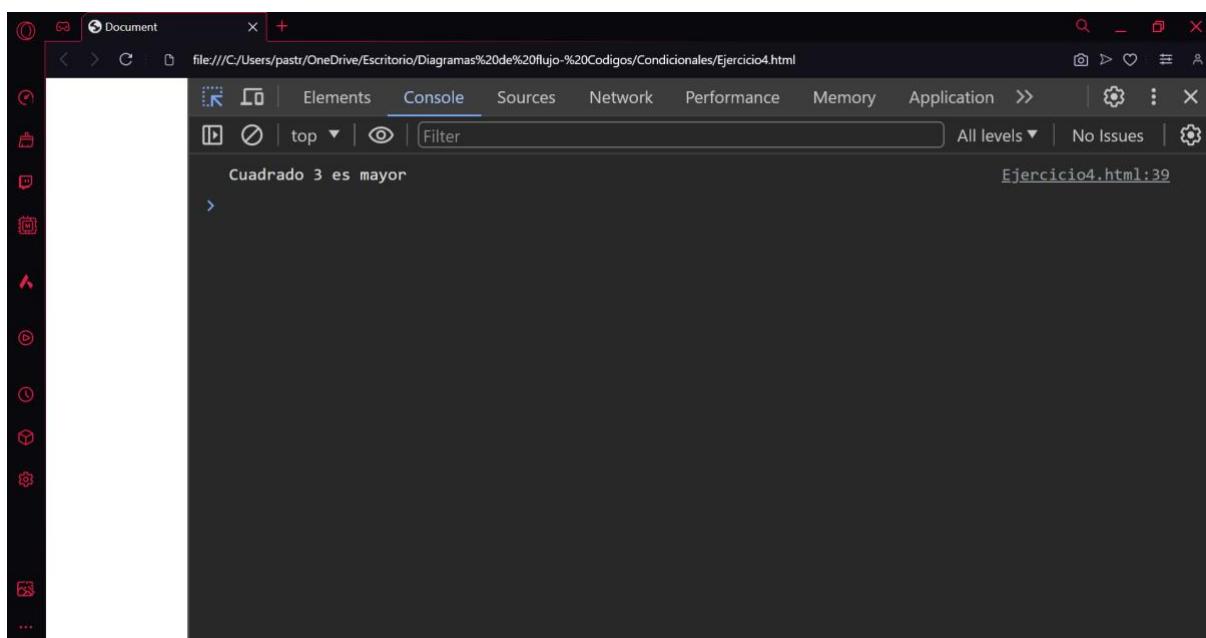
Diagrama de flujo:



Código:

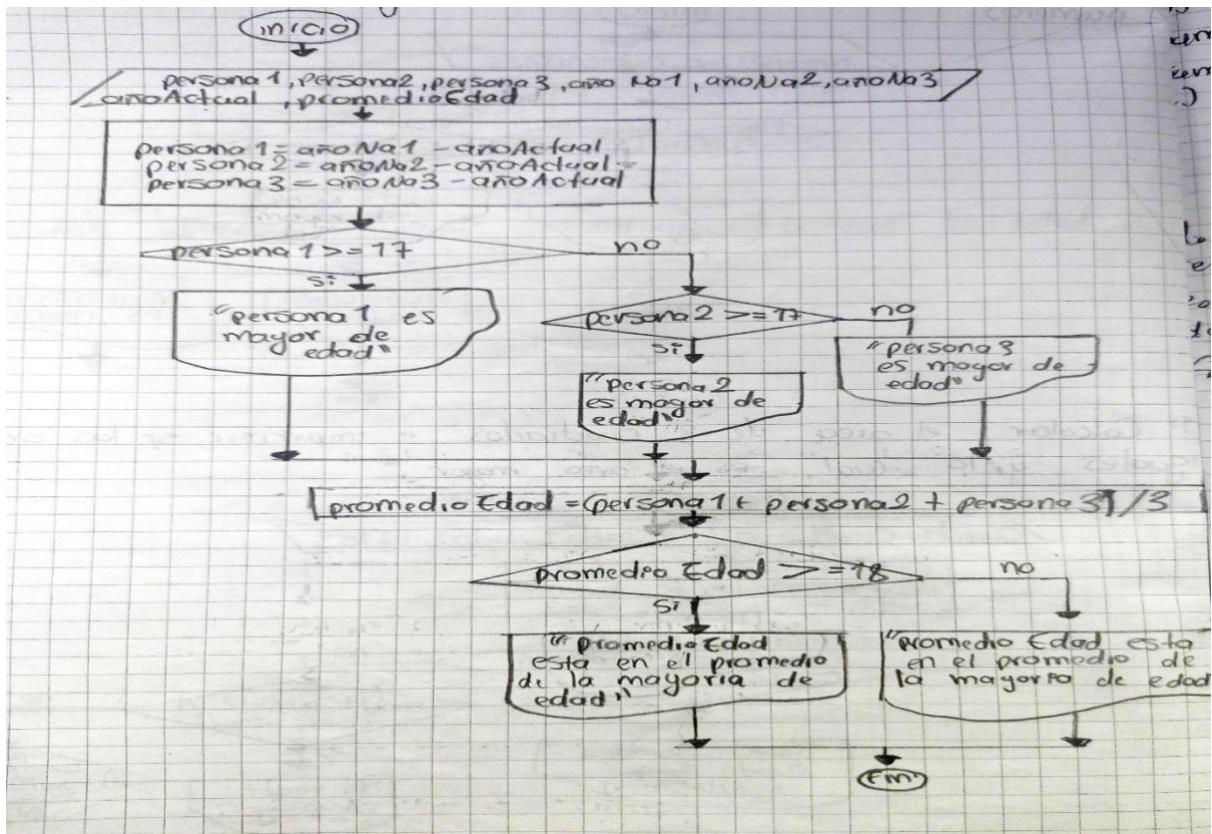
```
File Edit Selection View Go ... ← → Diagramas de flujo- Códigos
Ejercicio4.html
Condiciones > Ejercicio4.html ...
1 <!DOCTYPE html>
2 <html lang="en">
3   <head>
4     <meta charset="UTF-8">
5     <meta name="viewport" content="width=device-width, initial-scale=1.0">
6     <title>Document</title>
7   </head>
8   <body>
9     <script>
10    let cuadrado1;
11    let cuadrado2;
12    let cuadrado3;
13    let lado1= 46;
14    let lado2=23;
15    let lado3= 58;
16    cuadrado1=lado1*lado1;
17    cuadrado2= lado2*lado2;
18    cuadrado3= lado3*lado3;
19    if (cuadrado1==cuadrado2 && cuadrado2==cuadrado3&& cuadrado3== cuadrado1)
20    {
21      console.log("Son iguales");
22    }
23    else{
24
25      if (cuadrado1 > cuadrado2 && cuadrado1 > cuadrado3)
26      {
27        console.log("Cuadrado 1 es mayor");
28      }
29    else{
30      if
31      (cuadrado2 > cuadrado1 && cuadrado2 > cuadrado3)
32      {
33        console.log("Cuadrado 2 es mayor");
34      }
35    else {
36      (cuadrado3> cuadrado1 && cuadrado3 > cuadrado2)
37      console.log("Cuadrado 3 es mayor");
38    }
39  }
40}
41 </script>
42
43 </body>
```

Pantalla:



Ejercicio5:

Diagrama de flujo:

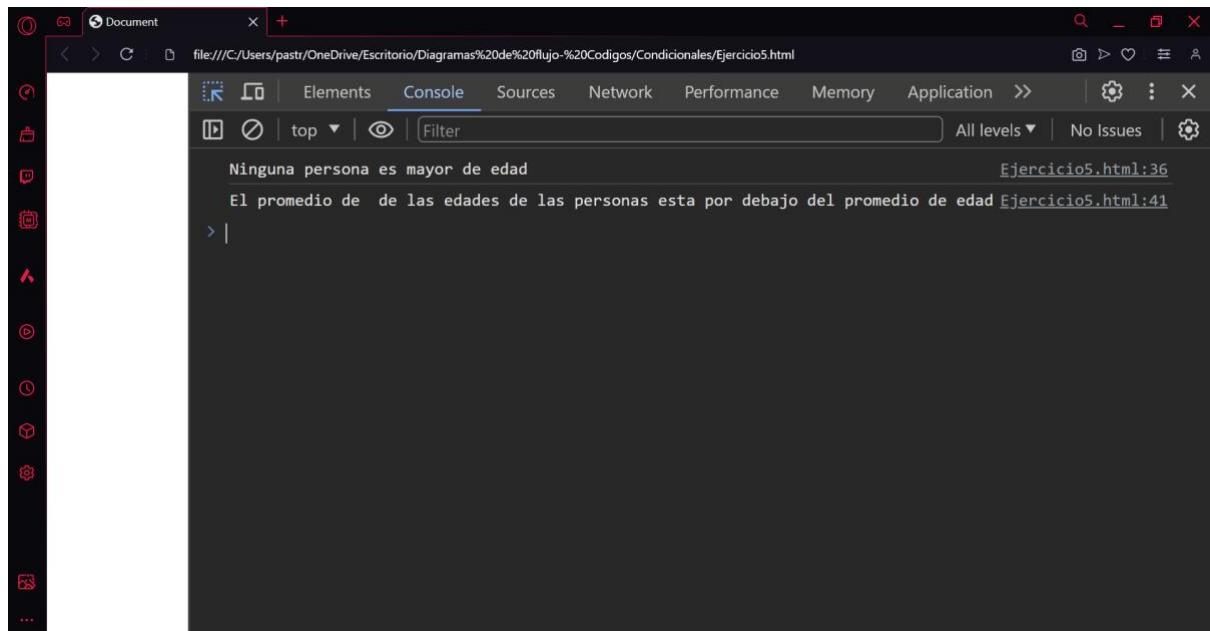


Código:

```

File Edit Selection View Go ... ← → Diagramas de flujo- Códigos
Ejercicio5.html
Condicionales 2 Ejercicio5.html > html > body
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 | <meta charset="UTF-8">
5 | <meta name="viewport" content="width=device-width, initial-scale=1.0">
6 | <title>Document</title>
7 </head>
8 <body>
9 | <script>
10 | | let persona1;
11 | | let persona2;
12 | | let persona3;
13 | | let añoNa1=2031;
14 | | let añoNa2=2030;
15 | | let añoNa3=2029;
16 | | let añoActual=2024;
17 | | let promedioEdad;
18 | | persona1=añoActual-añoNa1;
19 | | persona2=añoActual-añoNa2;
20 | | persona3=añoActual-añoNa3;
21 | | if (persona1>17)
22 | | | console.log("Persona 1 es mayor de edad");
23 |
24 | | else
25 |
26 | | if (persona2>17)
27 | | | console.log("Persona 2 es mayor de edad");
28 | | | else
29 |
30 |
31 | | if (persona3>17)
32 | | | console.log("Persona 3 es mayor de edad");
33 |
34 |
35 |
36 | | console.log("Ninguna persona es mayor de edad")
37 | | promedioEdad=(persona1+persona2+persona3)/3
38 | | if (promedioEdad>18)
39 | | | console.log("El promedio de las edades de las personas esta por encima del promedio de edad")
40 |
41 | | else
42 | | | console.log("El promedio de las edades de las personas esta por debajo del promedio de edad")
43 </script>
44 </html>
    
```

Pantalla:



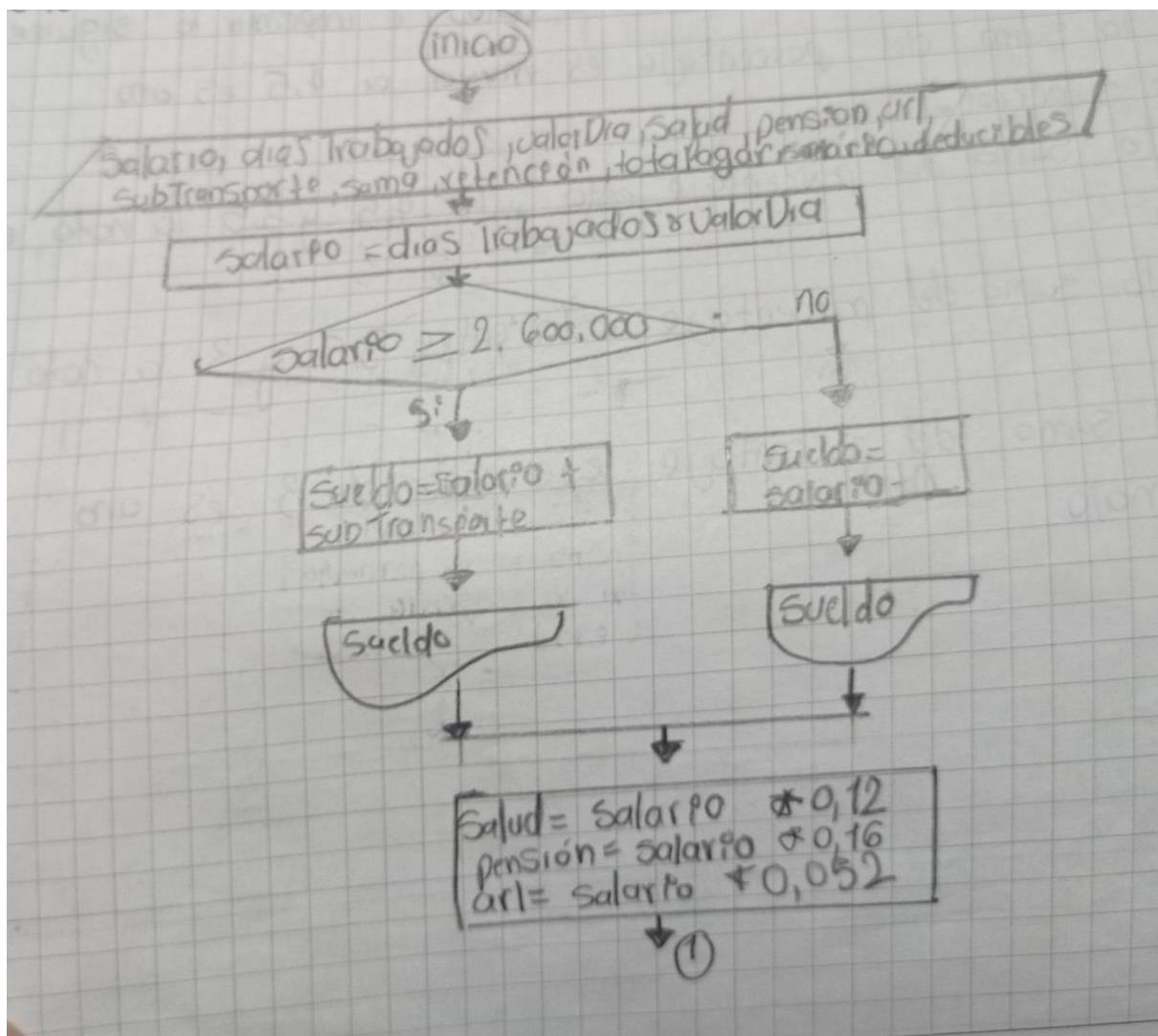
The screenshot shows the developer tools of a web browser, specifically the 'Console' tab, which is highlighted in blue. The URL in the address bar is `file:///C:/Users/pastr/OneDrive/Escritorio/Diagramas%20de%20flujo-%20Códigos/Condicionales/Ejercicio5.html`. The console output displays two error messages:

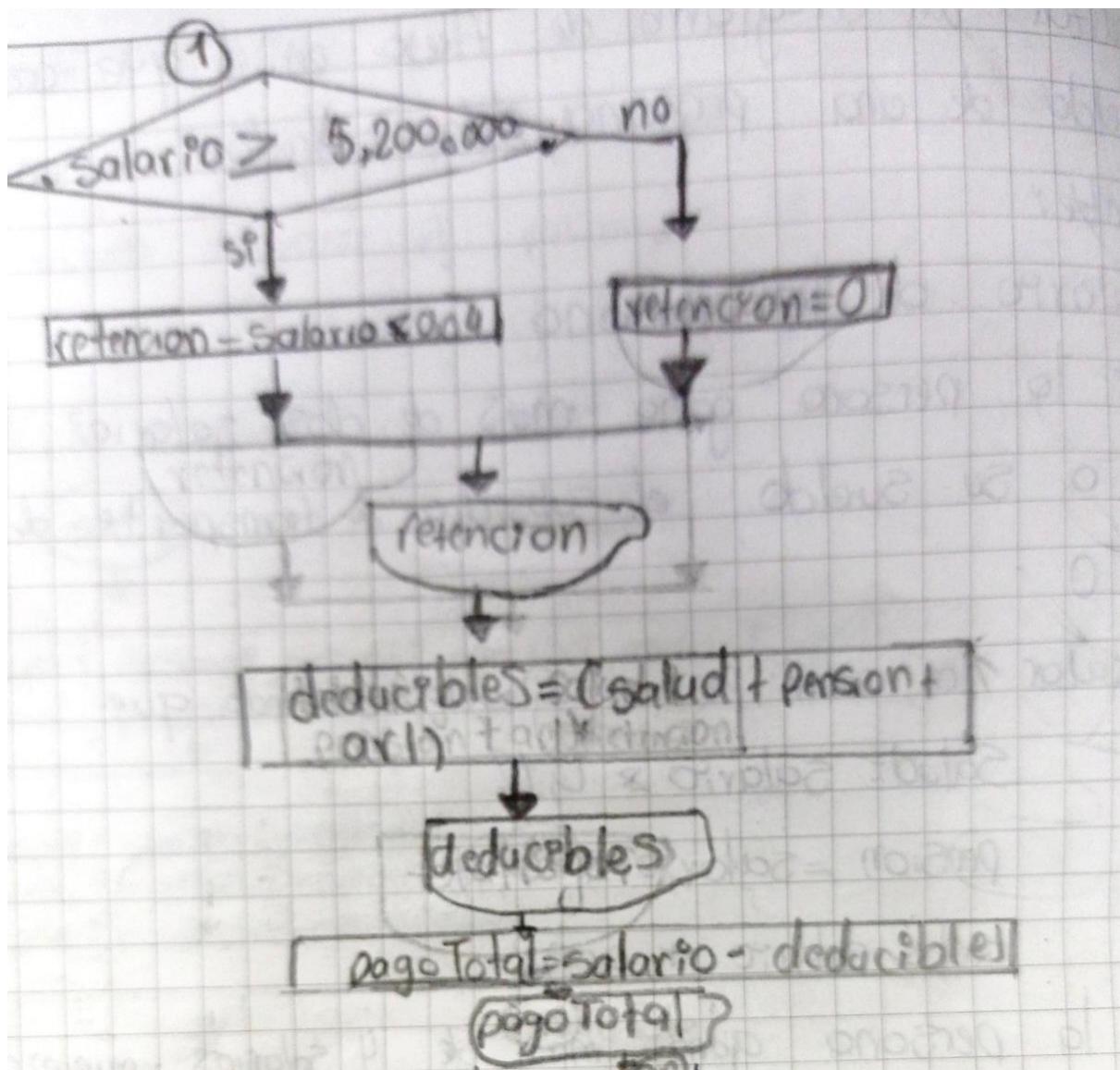
```
Ninguna persona es mayor de edad
El promedio de las edades de las personas esta por debajo del promedio de edad Ejercicio5.html:36
Ejercicio5.html:41
```

The first message, "Ninguna persona es mayor de edad", is at line 36 of the file. The second message, "El promedio de las edades de las personas esta por debajo del promedio de edad", is at line 41 of the same file.

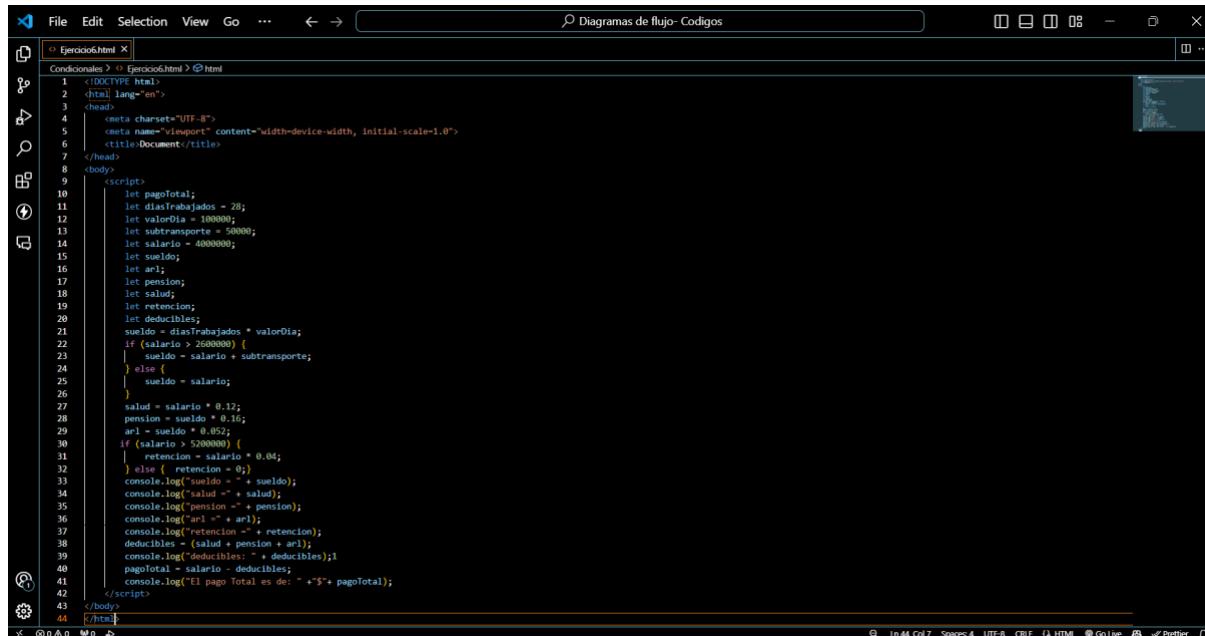
Ejercicio6:

Diagrama de flujo:



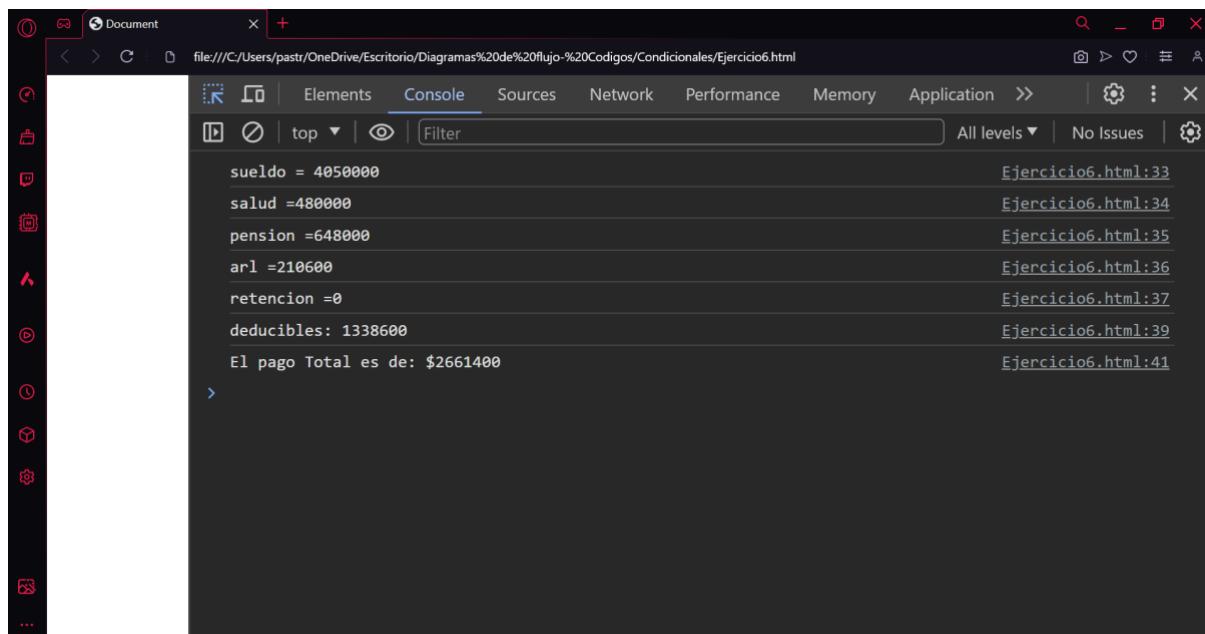


Código:



```
<!DOCTYPE html>
<html lang="es">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let pagoTotal;
        let diasTrabajados = 28;
        let valorDia = 100000;
        let subtransporte = 50000;
        let salario = 4000000;
        let sueldo;
        let arl;
        let pension;
        let salud;
        let retencion;
        let deducibles;
        sueldo = diasTrabajados * valorDia;
        if (salario > 2600000) {
            sueldo = salario + subtransporte;
        } else {
            sueldo = salario;
        }
        salud = salario * 0.12;
        pension = sueldo * 0.052;
        arl = sueldo * 0.056;
        if (salario > 5200000) {
            retencion = salario * 0.04;
        } else {
            retencion = 0;
        }
        console.log("sueldo = " + sueldo);
        console.log("arl = " + arl);
        console.log("pension = " + pension);
        console.log("arl = " + arl);
        console.log("retencion = " + retencion);
        deducibles = (salud + pension + arl);
        console.log("deducibles: " + deducibles);
        pagoTotal = salario - deducibles;
        console.log("El pago Total es de: " + '$' + pagoTotal);
    </script>
</body>
</html>
```

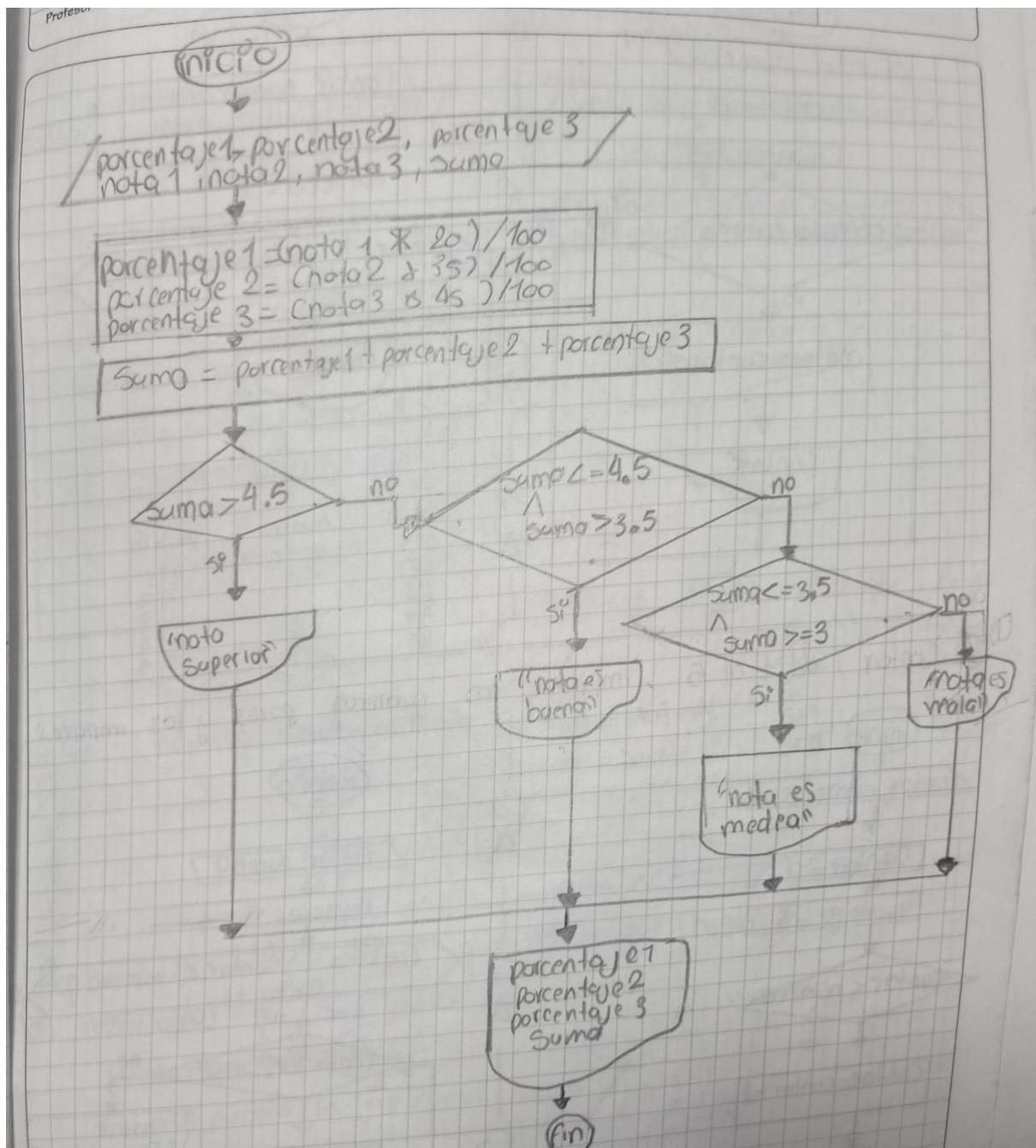
Pantalla:



```
sueldo = 4050000
salud = 480000
pension = 648000
arl = 210600
retencion = 0
deducibles: 1338600
El pago Total es de: $2661400
```

Ejercicio7:

Diagrama de flujo:



Código:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let nota1=3.8;
        let nota2=4.5;
        let nota3=3.2;
        let porcentaje1=(nota1*20)/100;
        let porcentaje2=(nota2*35)/100;
        let porcentaje3=(nota3*45)/100;
        let suma =(porcentaje1+porcentaje2+porcentaje3);
        console.log("La primera nota es:"+ nota1);
        console.log("La segunda nota es:"+ nota2);
        console.log("La tercera nota es:"+ nota3);
        console.log("El porcentaje de la primera nota es :"+ porcentaje1.toFixed(1)+"%");
        console.log("El porcentaje de la segunda nota es :"+ porcentaje2.toFixed(1)+"%");
        console.log("El porcentaje de la tercera nota es :"+ porcentaje3.toFixed(1)+"%");
        console.log("El resultado total de los porcentajes es : "+suma.toFixed(1));
        if (suma > 4.5) {
            console.log("Nota superior");
        } else if (suma > 3.5 && suma < 4.5) {
            console.log("Nota es buena");
        } else if (suma > 3 && suma <= 3.5) {
            console.log("Nota es media");
        } else {
            console.log("Nota es mala");
        }
    </script>
</body>
</html>
```

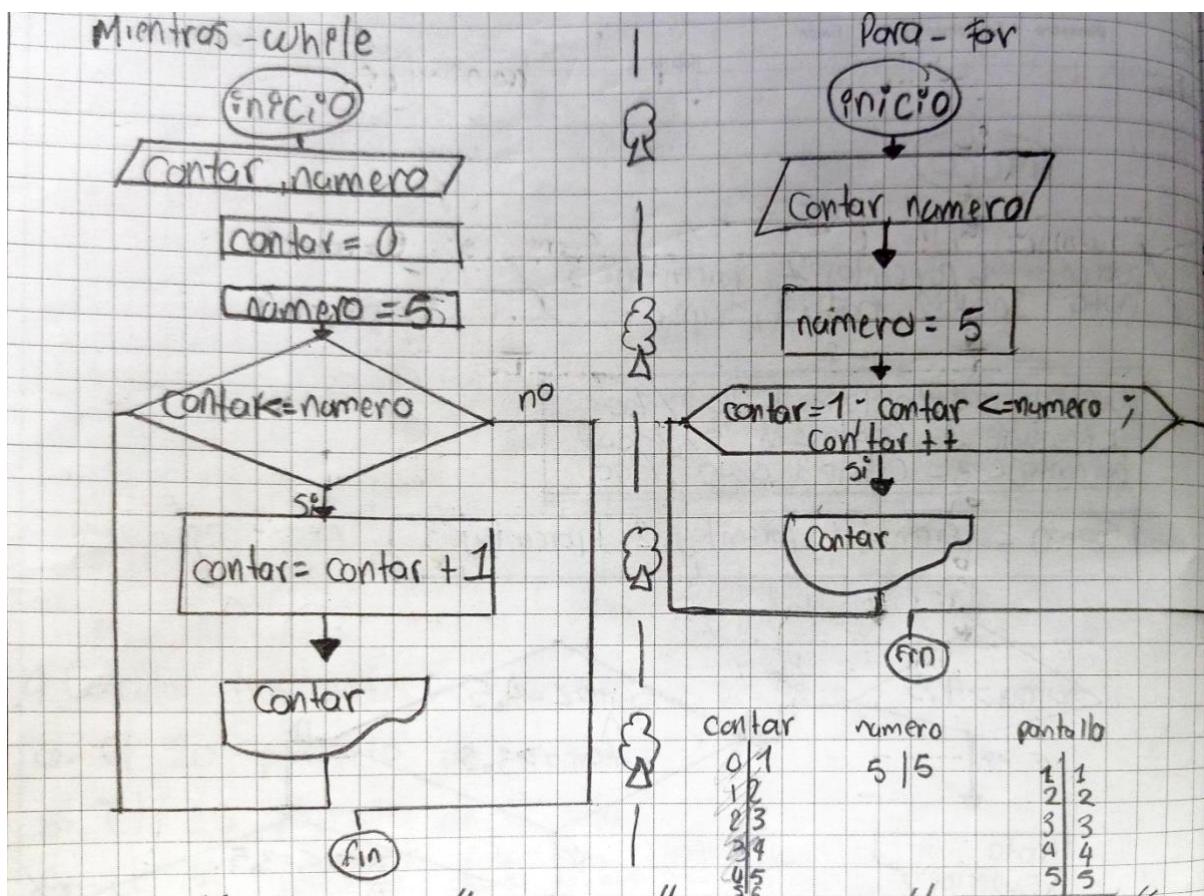
Pantalla:

Output	File	Line
La primera nota es:3.8	Ejercicio7.html	:21
La segunda nota es:4.5	Ejercicio7.html	:22
La tercera nota es:3.2	Ejercicio7.html	:23
El porcentaje de la primera nota es :0.8%	Ejercicio7.html	:24
El porcentaje de la segunda nota es :1.6%	Ejercicio7.html	:25
El porcentaje de la tercera nota es :1.4%	Ejercicio7.html	:26
El resultado total de los porcentajes es : 3.8	Ejercicio7.html	:27
Nota es buena	Ejercicio7.html	:32

CICLOS

Ejercicio 1:

Diagrama de flujo:

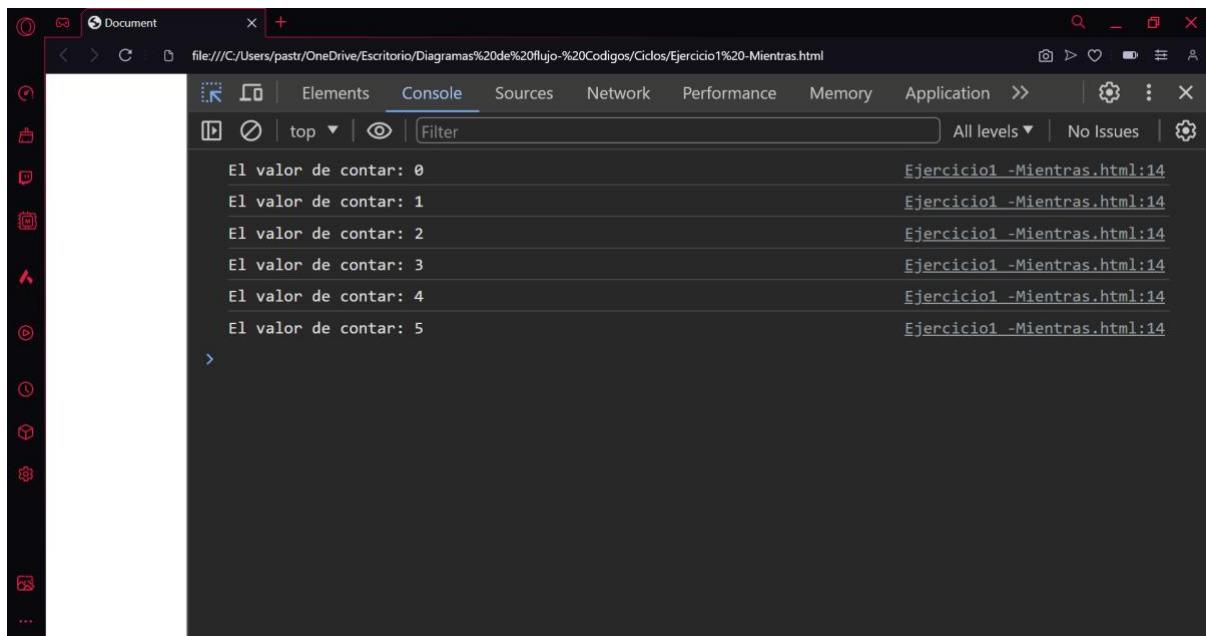


Código ciclo Mientras:

Screenshot of a code editor showing the code for the While loop:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let contar = 0;
        let numero = 5;
        while (contar <= numero) {
            console.log("El valor de contar: " + contar++);
        }
    </script>
</body>
</html>
```

Pantalla ciclo Mientras:



Código ciclo For:

The screenshot shows a code editor interface with the file 'Ejercicio1-for.html' open. The code is as follows:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let contar;
        let numero=5;
        for (let contar = 0; contar <= numero ; contar++) {
            console.log("El valor de contar es: " + contar);
        }
    </script>
</body>
</html>
```

The code editor has a sidebar with various icons and a status bar at the bottom.

Pantalla ciclo For:

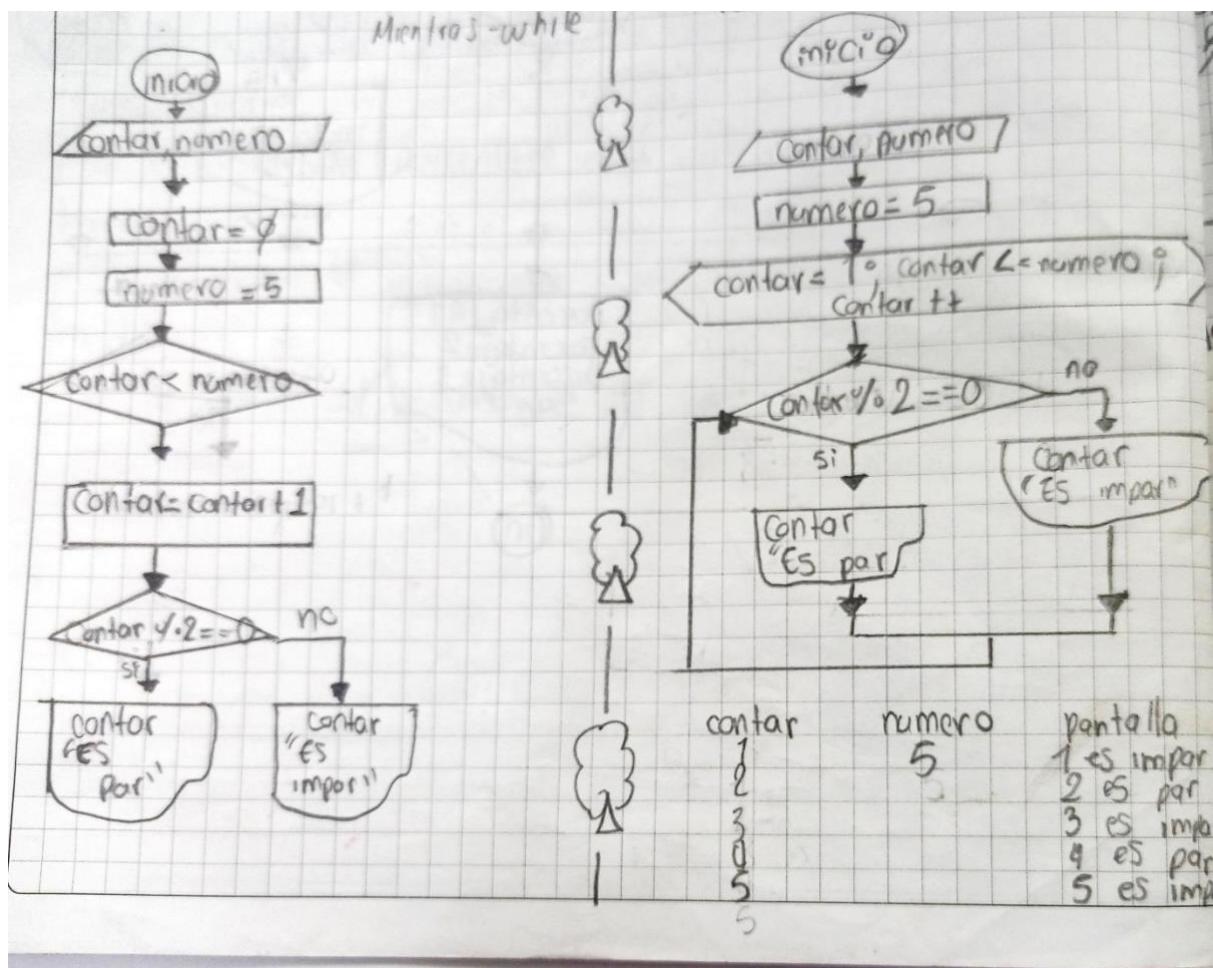
The screenshot shows a browser's developer tools interface, specifically the 'Console' tab. The left sidebar contains various developer tools icons. The main area displays the following text output:

```
El valor de contar es: 0
El valor de contar es: 1
El valor de contar es: 2
El valor de contar es: 3
El valor de contar es: 4
El valor de contar es: 5
```

Each line of text is preceded by a timestamp: 'Ejercicio1-for.html:13'. The console interface includes tabs for Elements, Console, Sources, Network, Performance, Memory, Application, and more, along with a search bar and filter options.

Ejercicio 2:

Diagrama de flujo:



Código ciclo Mientras:

File Edit Selection View Go ... ← → ⌂ Diagramas de flujo- Códigos

Ejercicio 2 - Mientras.html

Ciclos > Ejercicio 2 - Mientras.html > html

```

1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document</title>
7 </head>
8 <body>
9   <script>
10
11   let numero = 5;
12   let contar= 0;
13   while (contar <= numero ) {
14     if (contar % 2 === 0 ) {
15       console.log(contar + " Es par");
16     } else {
17       console.log(contar + " Es impar");
18     }
19     contar++;
20   }
21
22   </script>
23 </body>
24 </html>

```

Ln 23, Col 20 Spaces: 2 UTF-8 CRLF { HTML ⌂ Go Live ✘ Prettier

Pantalla ciclo Mientras:

A screenshot of a browser's developer tools console tab. The URL in the address bar is file:///C:/Users/pastr/OneDrive/Escritorio/Diagramas%20de%20flujo-%20Códigos/Ciclos/Ejercicio%202-%20Mientras.html. The console output shows the following log entries:

```
0 Es par
1 Es impar
2 Es par
3 Es impar
4 Es par
5 Es impar
```

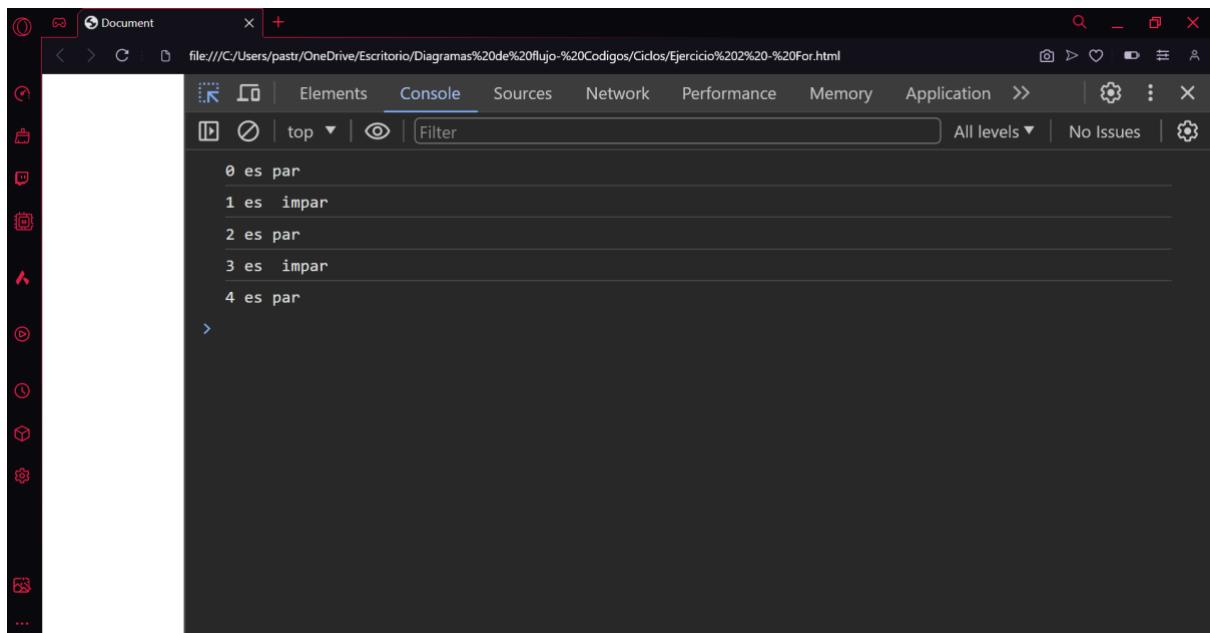
Each entry is followed by the file name "Ejercicio 2 - Mientras.html" and line numbers 15, 17, 15, 17, 15, and 17 respectively.

Código ciclo For:

A screenshot of a code editor window titled "Ejercicio 2 - For.html". The code editor interface includes a toolbar with icons for file operations, selection, view, and navigation, and a status bar at the bottom. The main area displays the following JavaScript code:

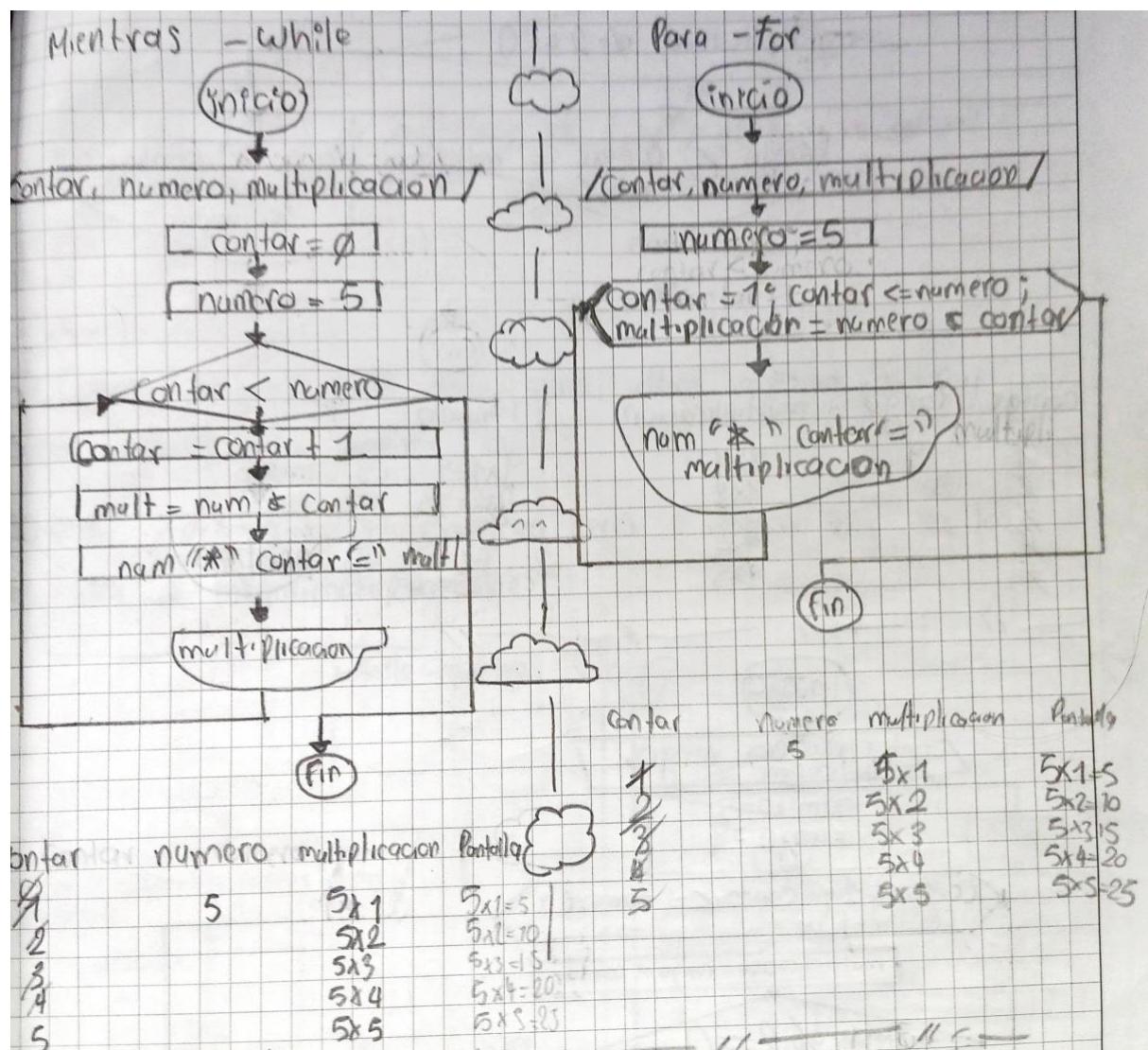
```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document</title>
7 </head>
8 <body>
9   <script>
10  let numero =5;
11  for (let contar = 0; contar <= numero; contar++) {
12    if (contar % 2 === 0) {
13      console.log(contar + " es par");
14    } else {
15      console.log(contar + " es impar");
16    }
17  }
18 </script>
19 </body>
20 </html>
```

Pantalla ciclo For:

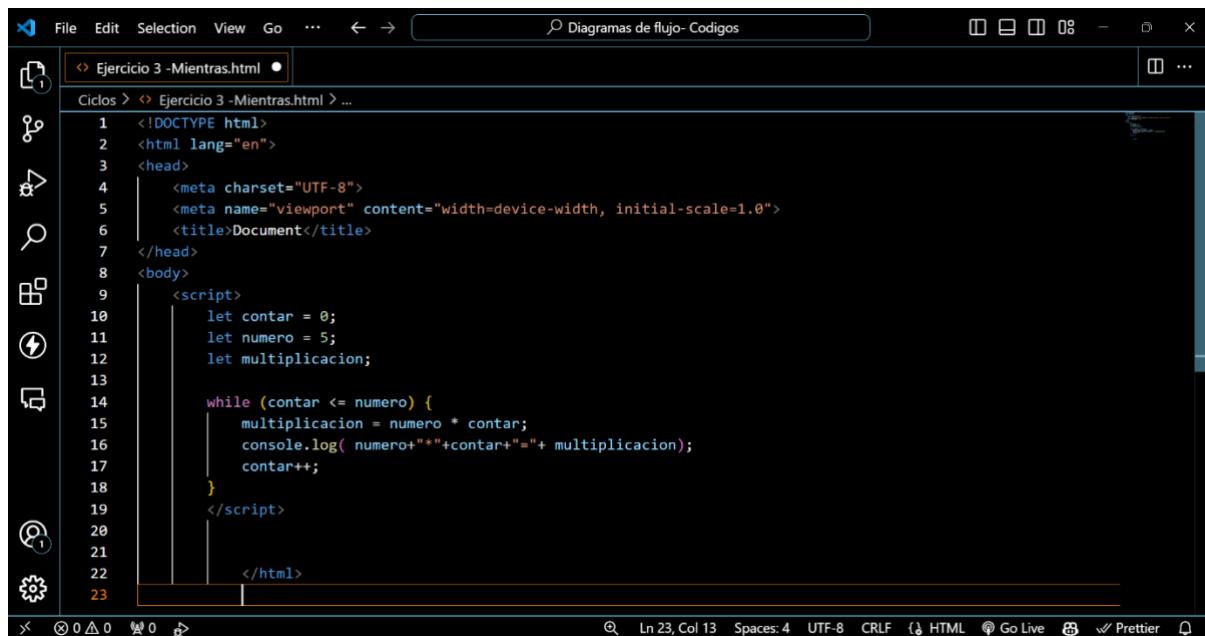


Ejercicio 3:

Diagrama de flujo:



Código ciclo Mientras:

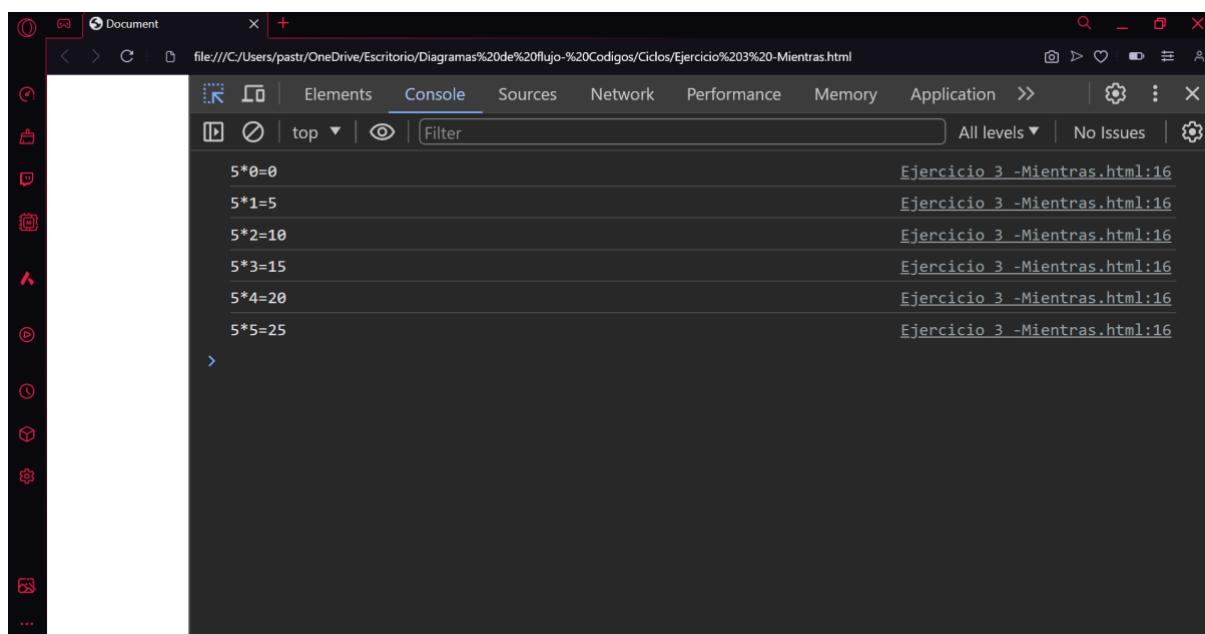


The screenshot shows a code editor window with the title "Ejercicio 3 -Mientras.html". The file path "Ciclos > Ejercicio 3 -Mientras.html" is visible in the top left. The code itself is as follows:

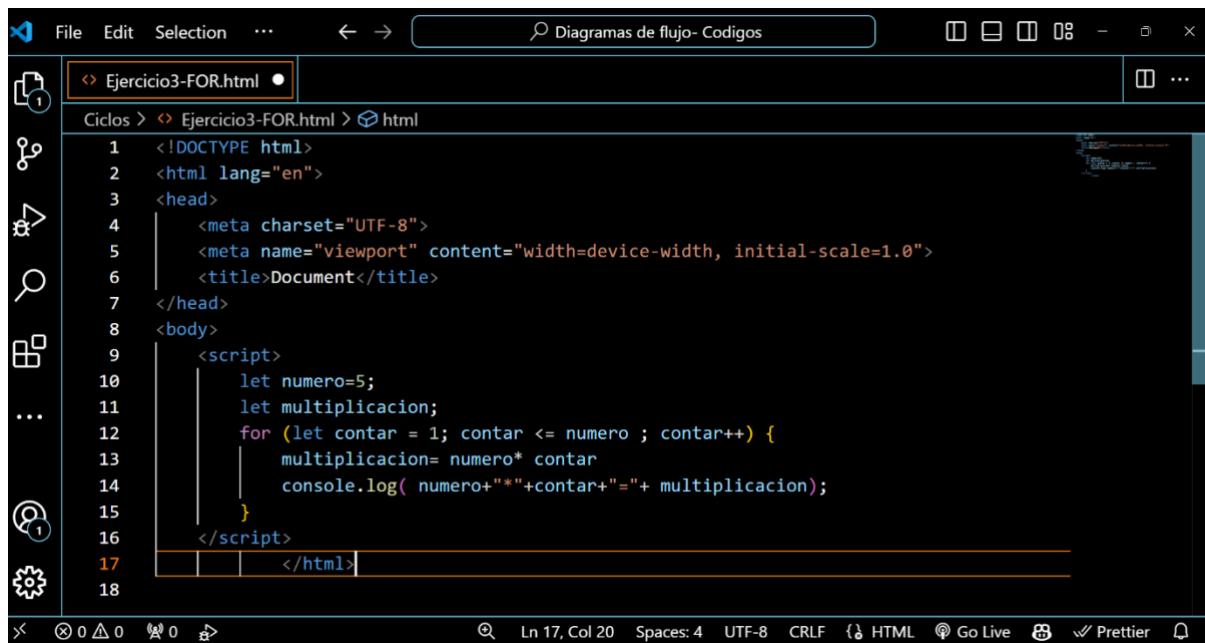
```
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Document</title>
7  </head>
8  <body>
9      <script>
10         let contar = 0;
11         let numero = 5;
12         let multiplicacion;
13
14         while (contar <= numero) {
15             multiplicacion = numero * contar;
16             console.log( numero+"*"+contar+"="+ multiplicacion);
17             contar++;
18         }
19     </script>
20
21
22
23  </html>
```

The code defines a script block that initializes variables `contar` to 0, `numero` to 5, and `multiplicacion` to null. It then enters a `while` loop where it multiplies `numero` by `contar`, logs the result to the console, and increments `contar` by 1. This loop continues until `contar` is no longer less than or equal to `numero`. Finally, the script block is closed and the entire HTML document is closed.

Pantalla ciclo Mientras:

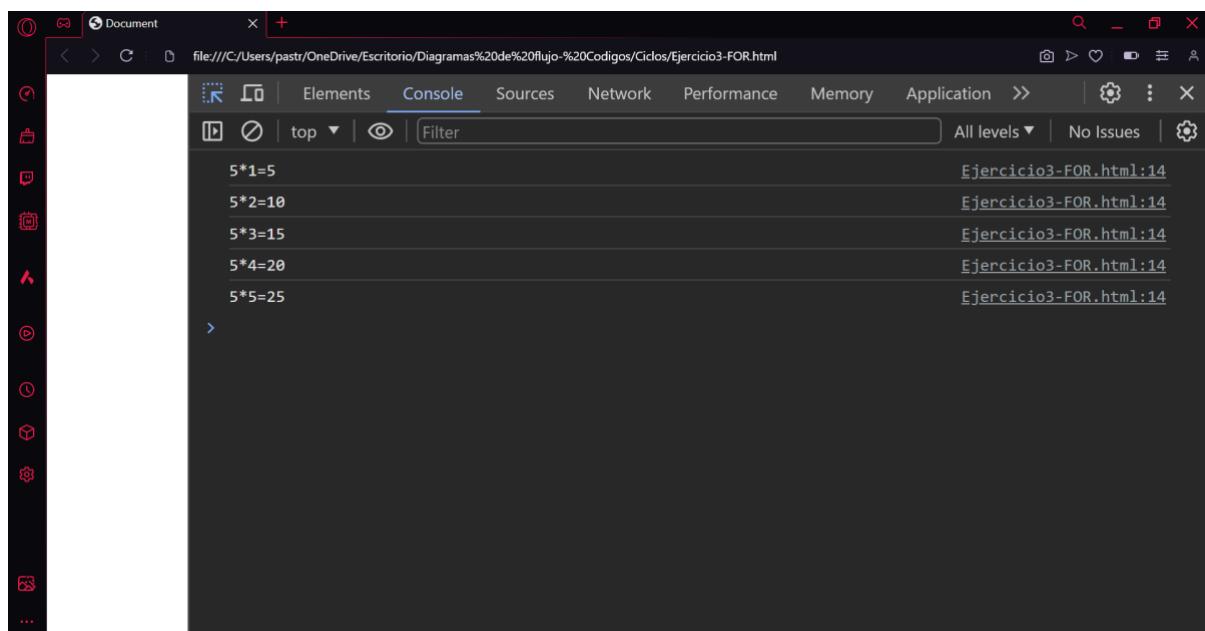


Código ciclo For:



```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let numero=5;
        let multiplicacion;
        for (let contar = 1; contar <= numero ; contar++) {
            multiplicacion= numero* contar
            console.log( numero+"*"+contar+"="+ multiplicacion);
        }
    </script>
</body>
</html>
```

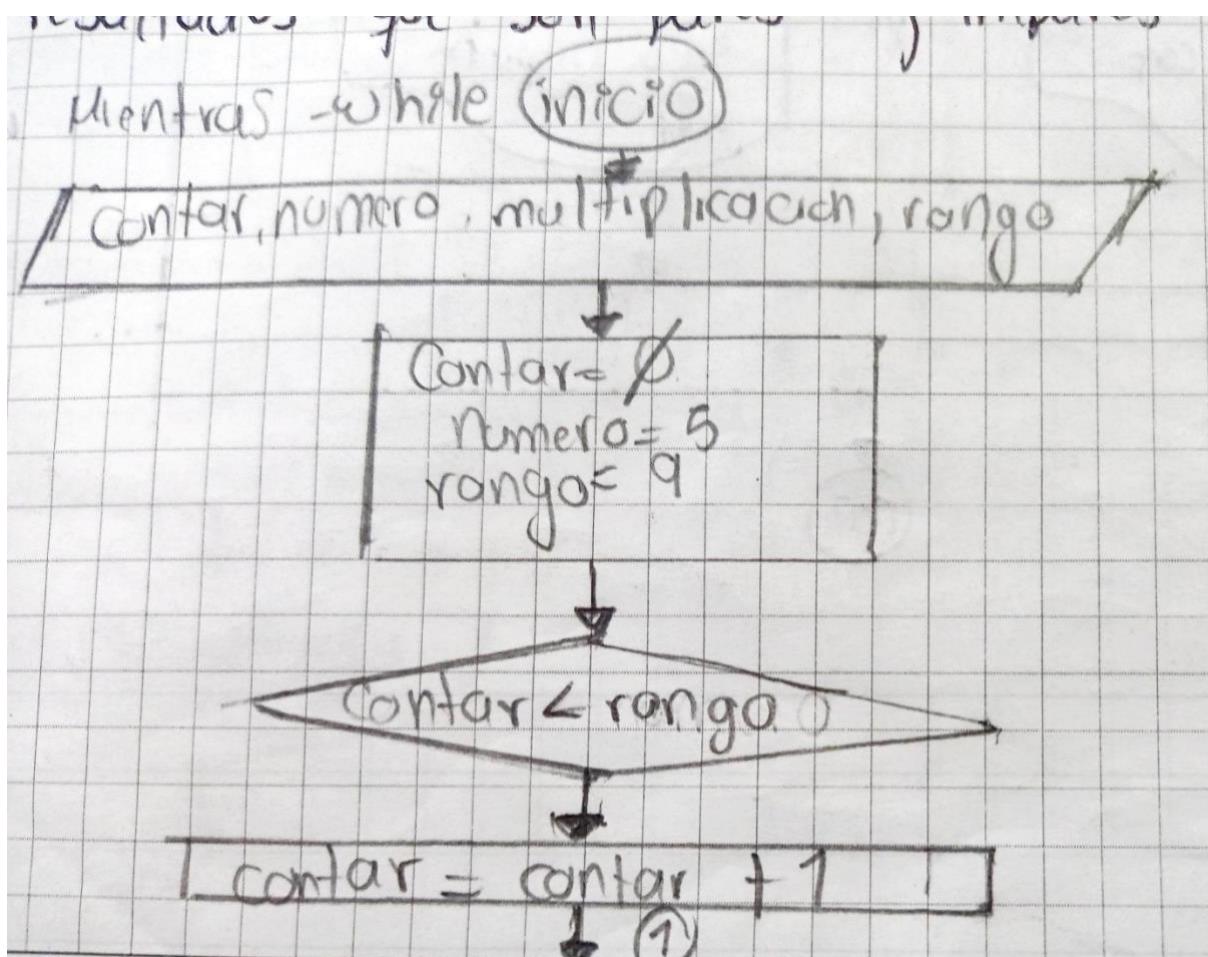
Pantalla ciclo For:

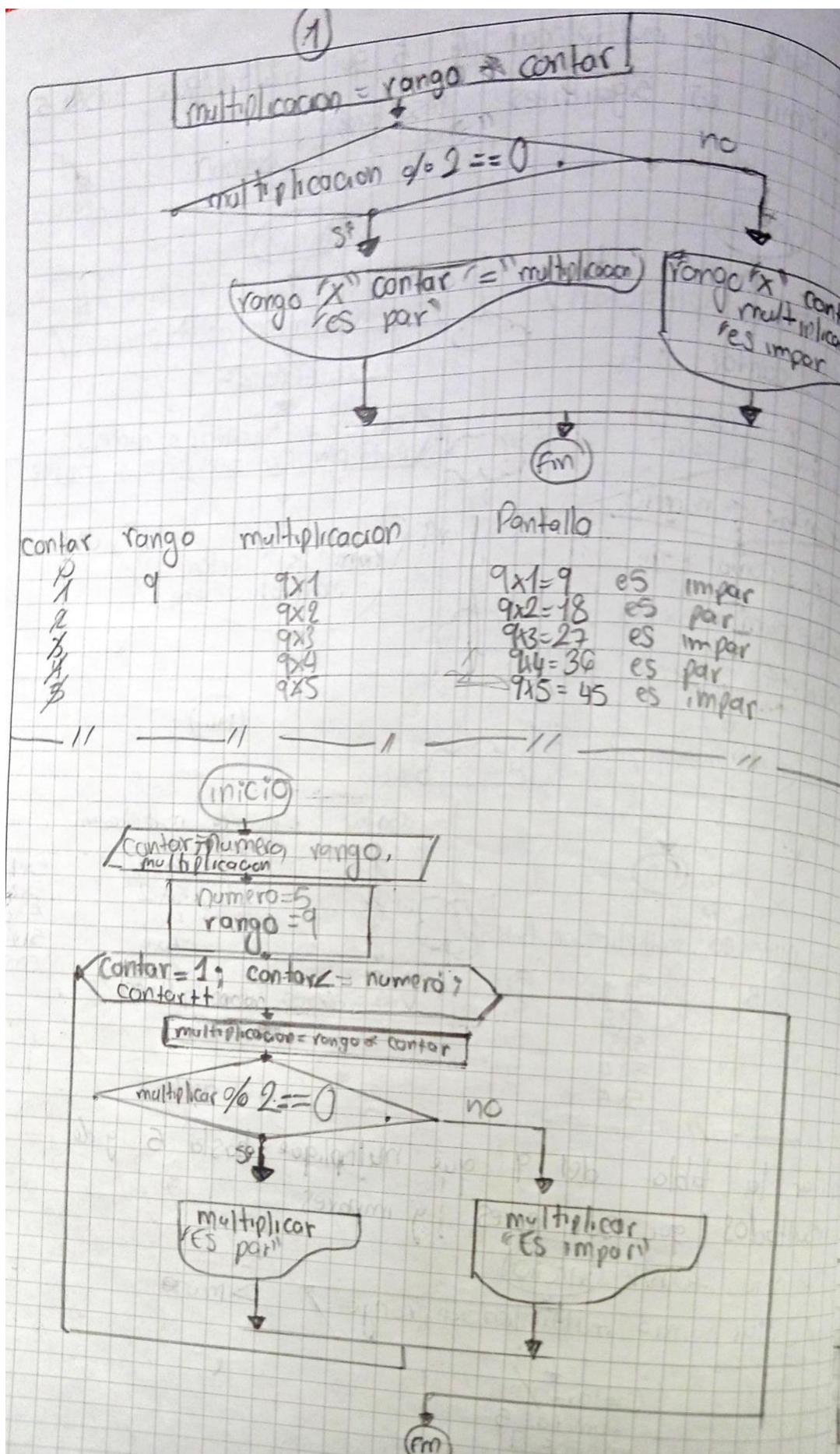


```
5*1=5
5*2=10
5*3=15
5*4=20
5*5=25
```

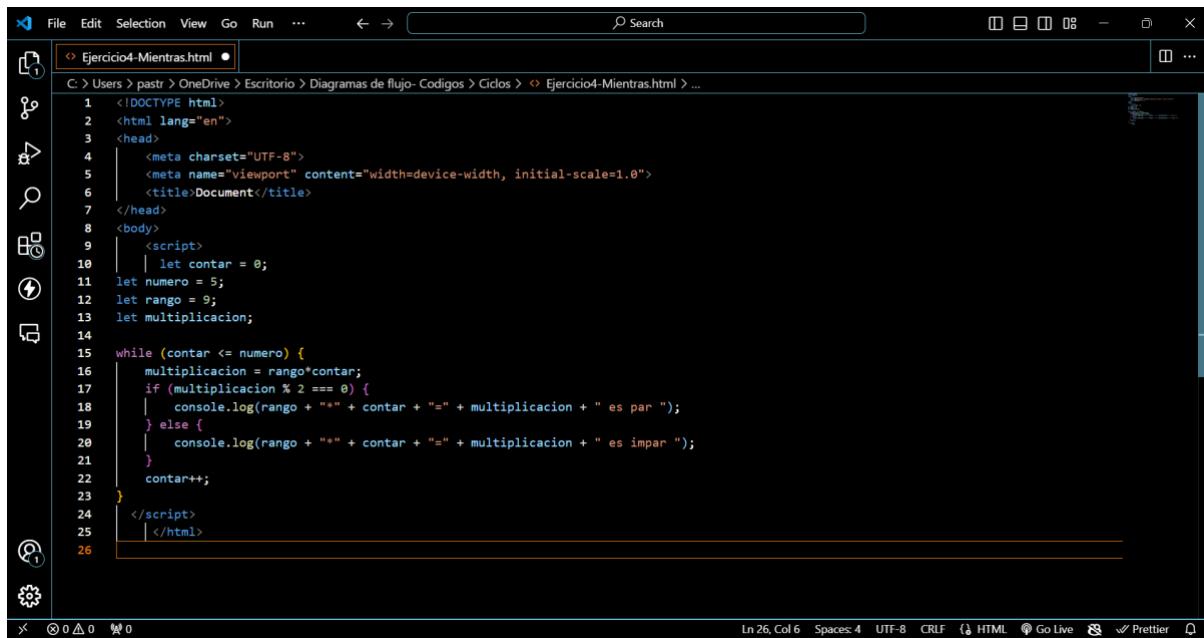
Ejercicio 4:

Diagrama de flujo:





Código ciclo Mientras:



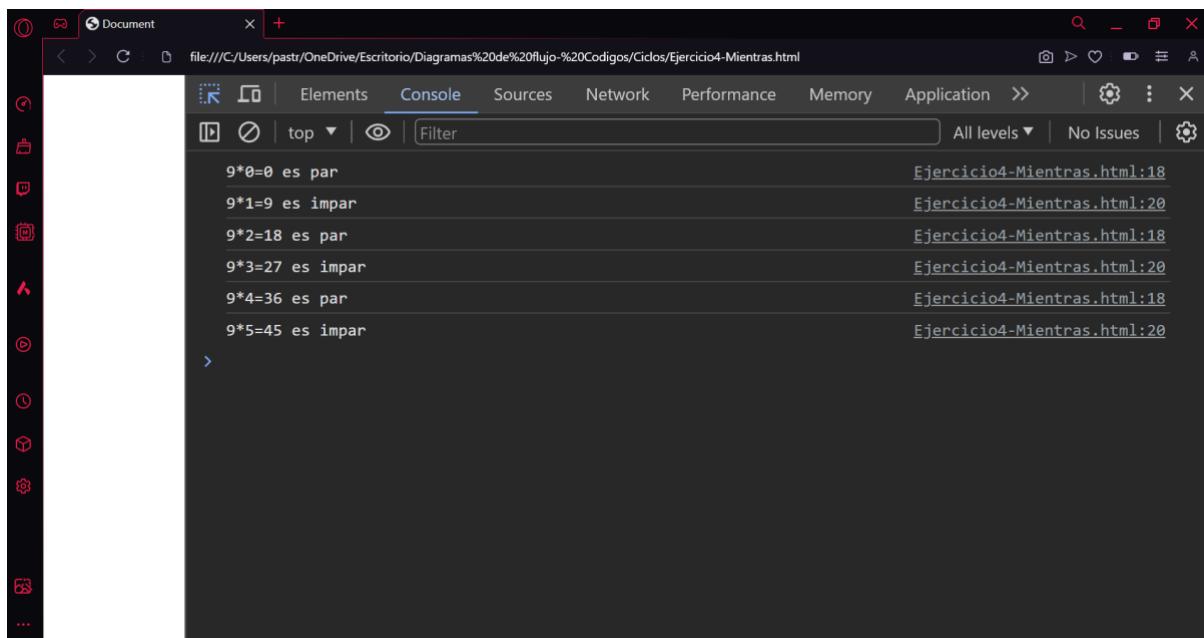
The screenshot shows a code editor window with the following code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <script>
        let contar = 0;
        let numero = 5;
        let rango = 9;
        let multiplicacion;

        while (contar <= numero) {
            multiplicacion = rango*contar;
            if (multiplicacion % 2 === 0) {
                console.log(rango + "=" + contar + "=" + multiplicacion + " es par ");
            } else {
                console.log(rango + "=" + contar + "=" + multiplicacion + " es impar ");
            }
            contar++;
        }
    </script>
</body>
</html>
```

The code defines a script block that initializes variables for `contar` (0), `numero` (5), `rango` (9), and `multiplicacion`. It then enters a `while` loop where it calculates the multiplication of `rango` and `contar`, and logs the result to the console with a message indicating whether it is even or odd. The loop increments `contar` by 1 until it reaches `numero`.

Pantalla ciclo Mientras:

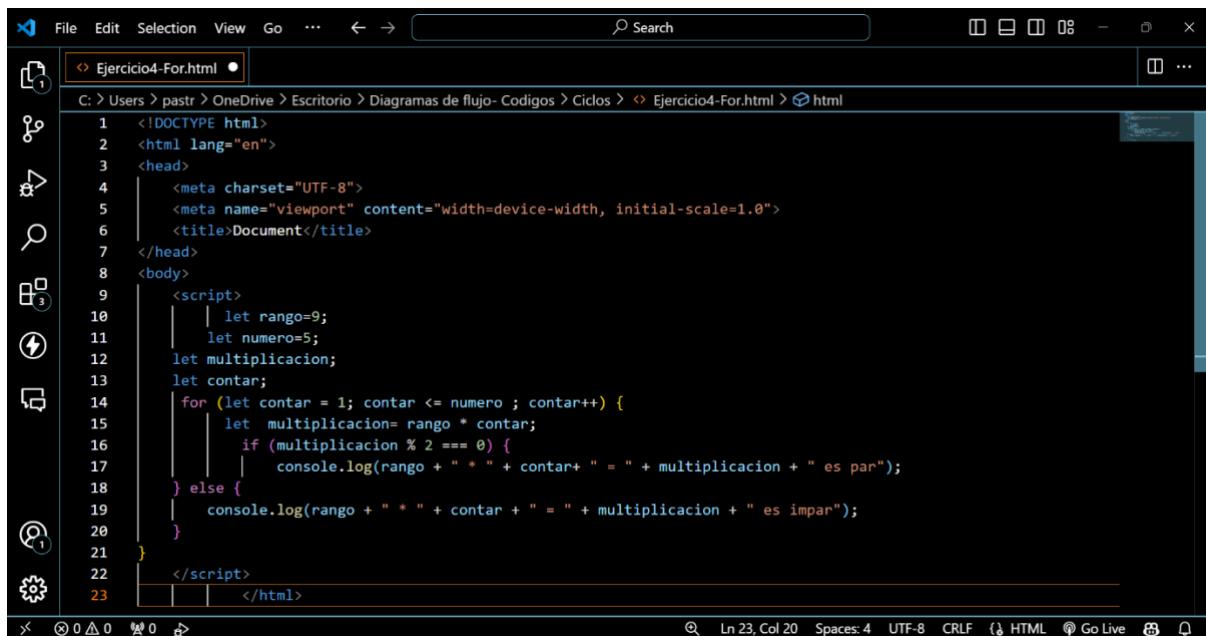


The screenshot shows the browser developer tools console tab with the following output:

```
9*0=0 es par
Ejercicio4-Mientras.html:18
Ejercicio4-Mientras.html:20
9*1=9 es impar
Ejercicio4-Mientras.html:18
Ejercicio4-Mientras.html:20
9*2=18 es par
Ejercicio4-Mientras.html:18
Ejercicio4-Mientras.html:20
9*3=27 es impar
Ejercicio4-Mientras.html:18
Ejercicio4-Mientras.html:20
9*4=36 es par
Ejercicio4-Mientras.html:18
Ejercicio4-Mientras.html:20
9*5=45 es impar
Ejercicio4-Mientras.html:18
Ejercicio4-Mientras.html:20
```

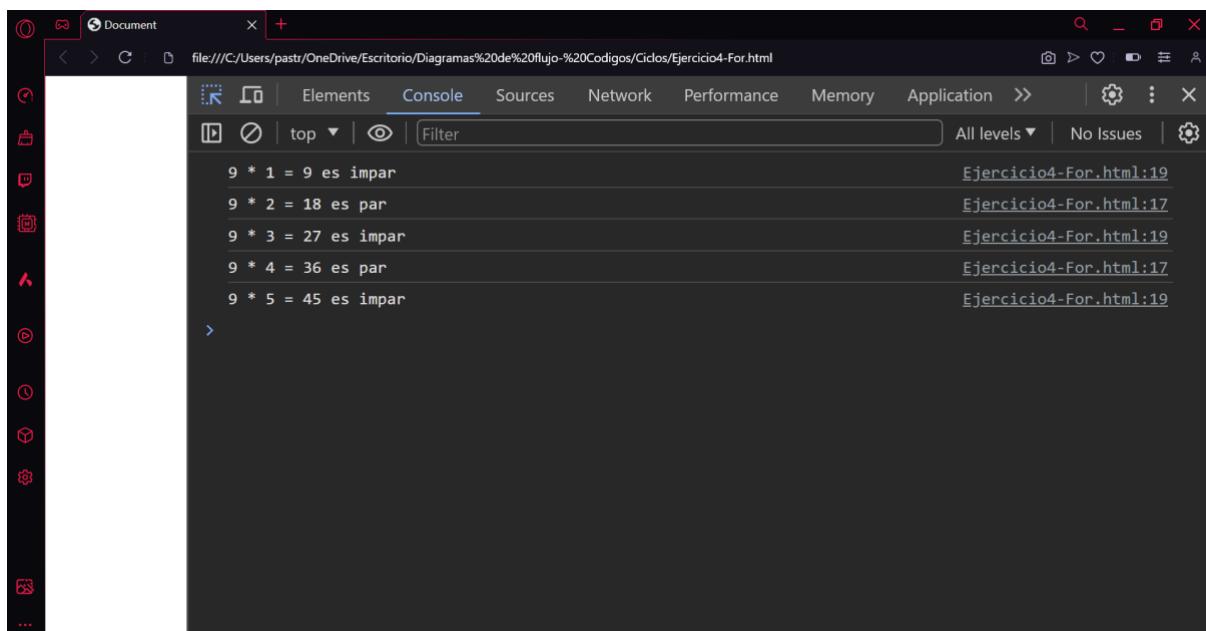
The console output shows the results of the script execution, with each multiplication and its parity status being printed to the console. The file path 'Ejercicio4-Mientras.html' is visible in the log entries.

Código ciclo For:



```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Document</title>
</head>
<body>
<script>
let rango=9;
let numero=5;
let multiplicacion;
let contar;
for (let contar = 1; contar <= numero ; contar++) {
    let multiplicacion= rango * contar;
    if (multiplicacion % 2 === 0) {
        console.log(rango + " * " + contar+ " = " + multiplicacion + " es par");
    } else {
        console.log(rango + " * " + contar + " = " + multiplicacion + " es impar");
    }
}
</script>
</html>
```

Pantalla ciclo For:

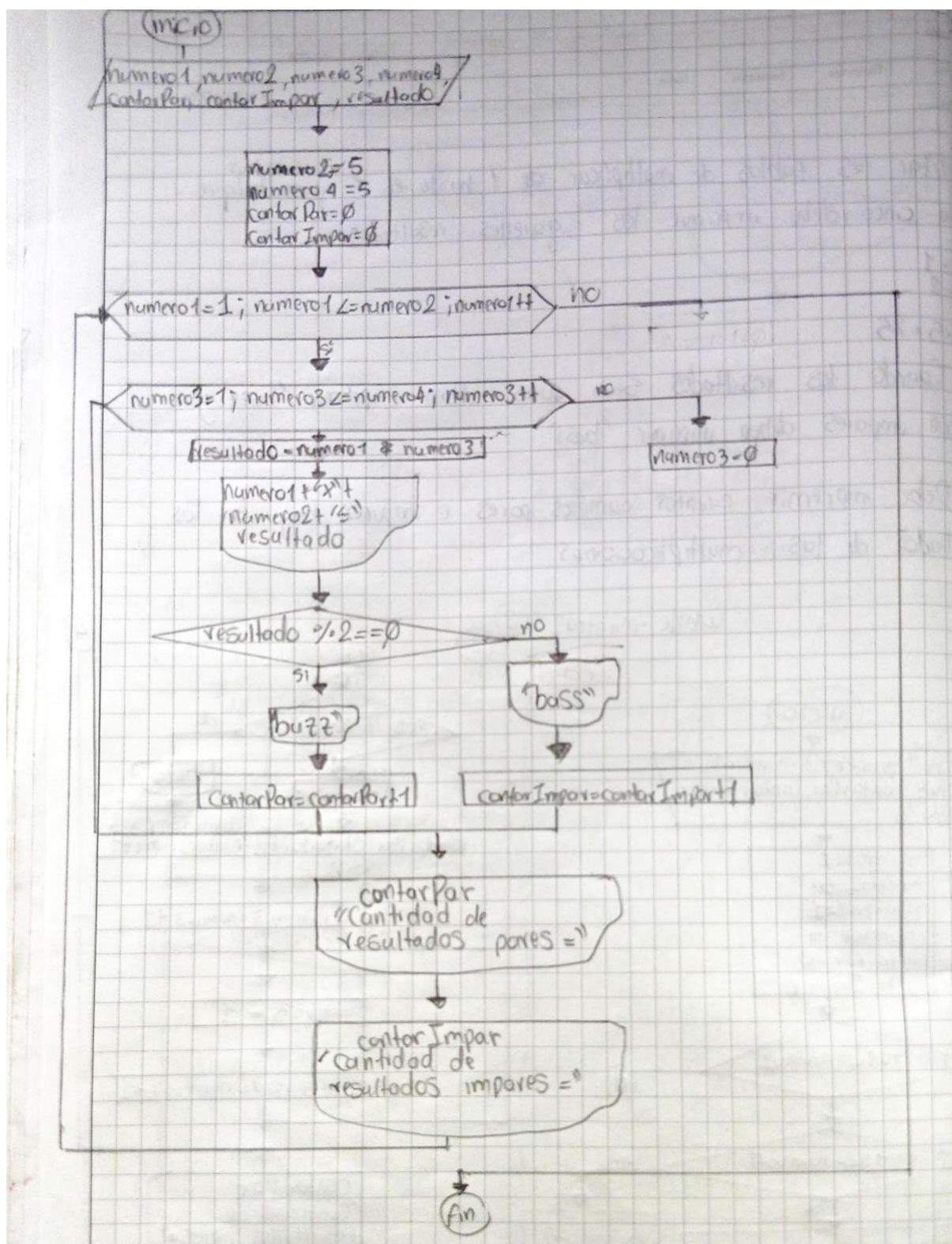


The screenshot shows the browser's developer tools with the 'Console' tab selected. The output pane displays the following log entries:

```
9 * 1 = 9 es impar
Ejercicio4-For.html:19
9 * 2 = 18 es par
Ejercicio4-For.html:17
9 * 3 = 27 es impar
Ejercicio4-For.html:19
9 * 4 = 36 es par
Ejercicio4-For.html:17
9 * 5 = 45 es impar
Ejercicio4-For.html:19
```

Ejercicio 5:

Diagrama de flujo:

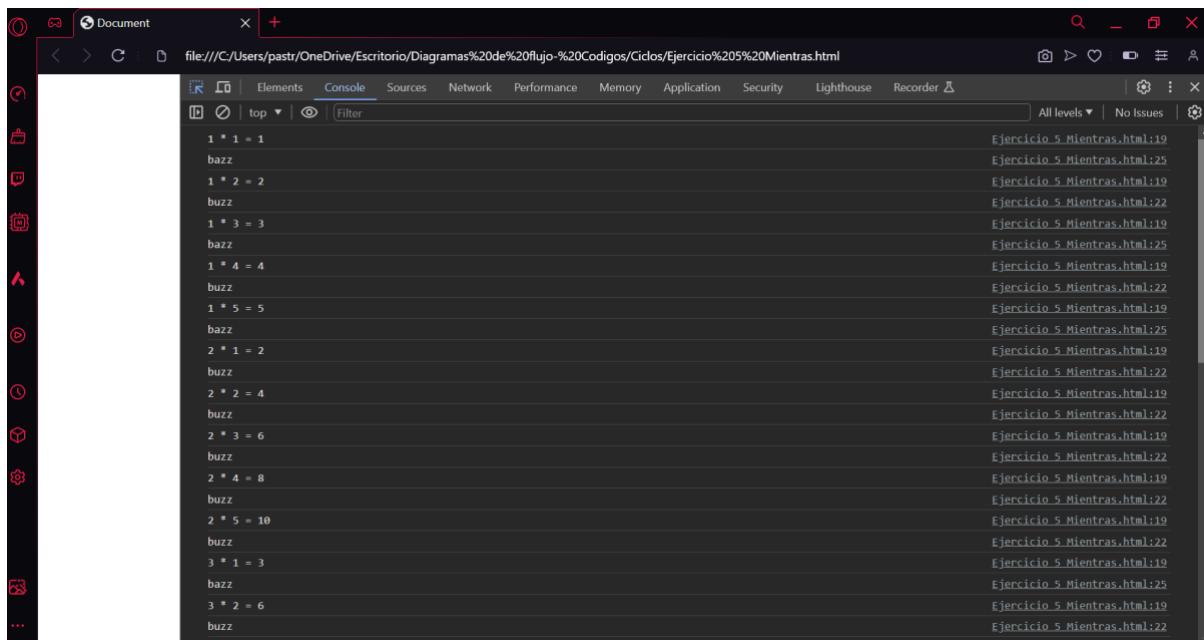


Código ciclo Mientras:

```
File Edit Selection View Go ... Search
Ejercicio 5 Mientras.html
C:\Users\pastr>OneDrive>Escritorio>Diagramas de flujo-Codigos>Ciclos>Ejercicio 5 Mientras.html > html
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document</title>
7 </head>
8 <body>
9   <script>
10  let numero1 = 1;
11  let numero2 = 5;
12  let numero3 = 1;
13  let numero4 = 5;
14  let contarPar = 0;
15  let contarImpar = 0;
16  while (numero1 <= numero2) {
17    while (numero3 <= numero4) {
18      let resultado = numero1 * numero3;
19      console.log(numero1 + " * " + numero3 + " = " + resultado);
20
21      if (resultado % 2 === 0) {
22        console.log("buzz");
23        contarPar++;
24      } else {
25        console.log("bazz");
26        contarImpar++;
27      }
28      numero3++;
29    }
30    numero3 = 1;
31    numero1++;
32  }
33  console.log("Cantidad de resultados pares: " + contarPar);
34  console.log("Cantidad de resultados impares: " + contarImpar);
35 </script>
36 </html>
```

Ln 36, Col 16 Spaces: 4 UTF-8 CRLF HTML Go Live

Pantalla ciclo Mientras:



The screenshot shows a browser developer tools window with the "Console" tab selected. The output area displays the following sequence of numbers and strings:

```
3 * 3 = 9
bazz
3 * 4 = 12
buzz
3 * 5 = 15
bazz
4 * 1 = 4
buzz
4 * 2 = 8
buzz
4 * 3 = 12
buzz
4 * 4 = 16
buzz
4 * 5 = 20
buzz
5 * 1 = 5
bazz
5 * 2 = 10
buzz
5 * 3 = 15
bazz
5 * 4 = 20
buzz
```

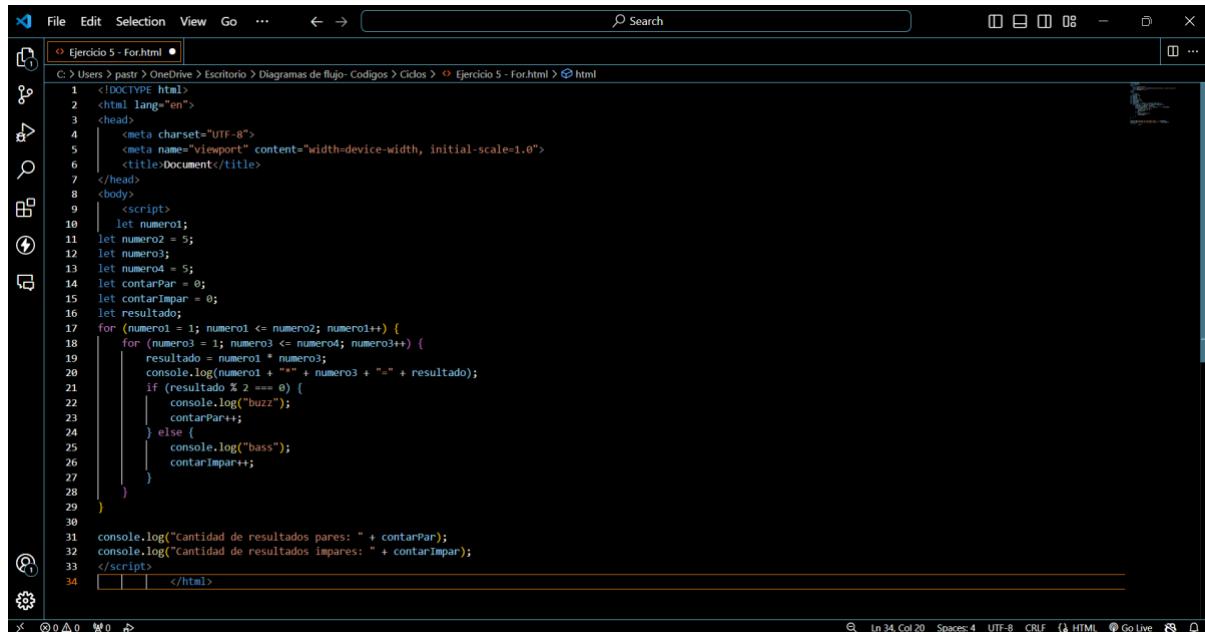
The right panel of the developer tools shows a list of log entries from the file "Ejercicio 5 Mientras.html". The log entries are identical to the ones displayed in the console, indicating that the browser is executing the code line by line.

The screenshot shows a browser developer tools window with the "Console" tab selected. The output area displays the following sequence of numbers and strings, followed by two summary statistics:

```
bazz
4 * 1 = 4
buzz
4 * 2 = 8
buzz
4 * 3 = 12
buzz
4 * 4 = 16
buzz
4 * 5 = 20
buzz
5 * 1 = 5
bazz
5 * 2 = 10
buzz
5 * 3 = 15
bazz
5 * 4 = 20
buzz
5 * 5 = 25
bazz
cantidad de resultados pares: 16
cantidad de resultados impares: 9
```

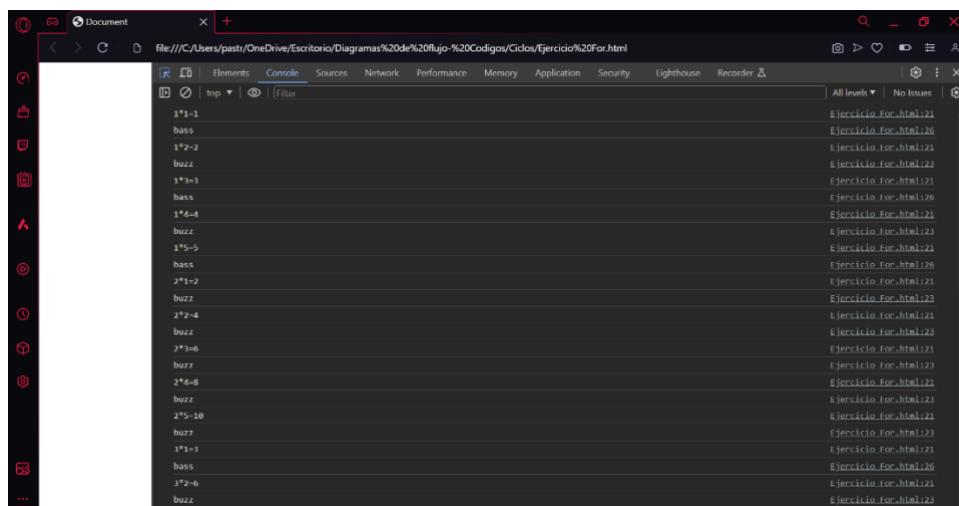
The right panel of the developer tools shows a list of log entries from the file "Ejercicio 5 Mientras.html". The log entries are identical to the ones displayed in the console, indicating that the browser is executing the code line by line.

Código ciclo For:



```
File Edit Selection View Go ... Search
Ejercicio 5 - For.html
C:\Users\pstr\OneDrive\Escritorio\Diagramas de flujo- Códigos > Ciclos > Ejercicio 5 - For.html > HTML
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Document</title>
7 </head>
8 <body>
9   <script>
10  let numero1;
11  let numero2 = 5;
12  let numero3;
13  let numero4 = 5;
14  let contarPar = 0;
15  let contarImpar = 0;
16  let resultado;
17  for (numero1 = 1; numero1 <= numero2; numero1++) {
18    for (numero3 = 1; numero3 <= numero4; numero3++) {
19      resultado = numero1 * numero3;
20      console.log(numero1 + "x" + numero3 + "=" + resultado);
21      if (resultado % 2 === 0) {
22        console.log("buzz");
23        contarPar++;
24      } else {
25        console.log("bass");
26        contarImpar++;
27      }
28    }
29  }
30  console.log("Cantidad de resultados pares: " + contarPar);
31  console.log("Cantidad de resultados impares: " + contarImpar);
32 </script>
33 </body>
34 </html>
```

Pantalla ciclo For:



The screenshot shows a browser developer tools window with the 'Console' tab selected. The output pane displays the following text:

```
bass
3*2=6
buzz
3*3=9
bass
3*4=12
buzz
3*5=15
bass
4*1=4
buzz
4*2=8
buzz
4*3=12
buzz
4*4=16
buzz
4*5=20
buzz
5*1=5
bass
5*2=10
buzz
5*3=15
bass
```

The right side of the console shows a list of log entries from the file 'Ejercicio_For.html' at various line numbers.

The screenshot shows a browser developer tools window with the 'Console' tab selected. The output pane displays the following text:

```
bass
4*1=4
buzz
4*2=8
buzz
4*3=12
buzz
4*4=16
buzz
4*5=20
buzz
5*1=5
bass
5*2=10
buzz
5*3=15
bass
5*4=20
buzz
5*5=25
bass
Cantidad de resultados pares: 16
Cantidad de resultados impares: 9
```

The right side of the console shows a list of log entries from the file 'Ejercicio_For.html' at various line numbers.