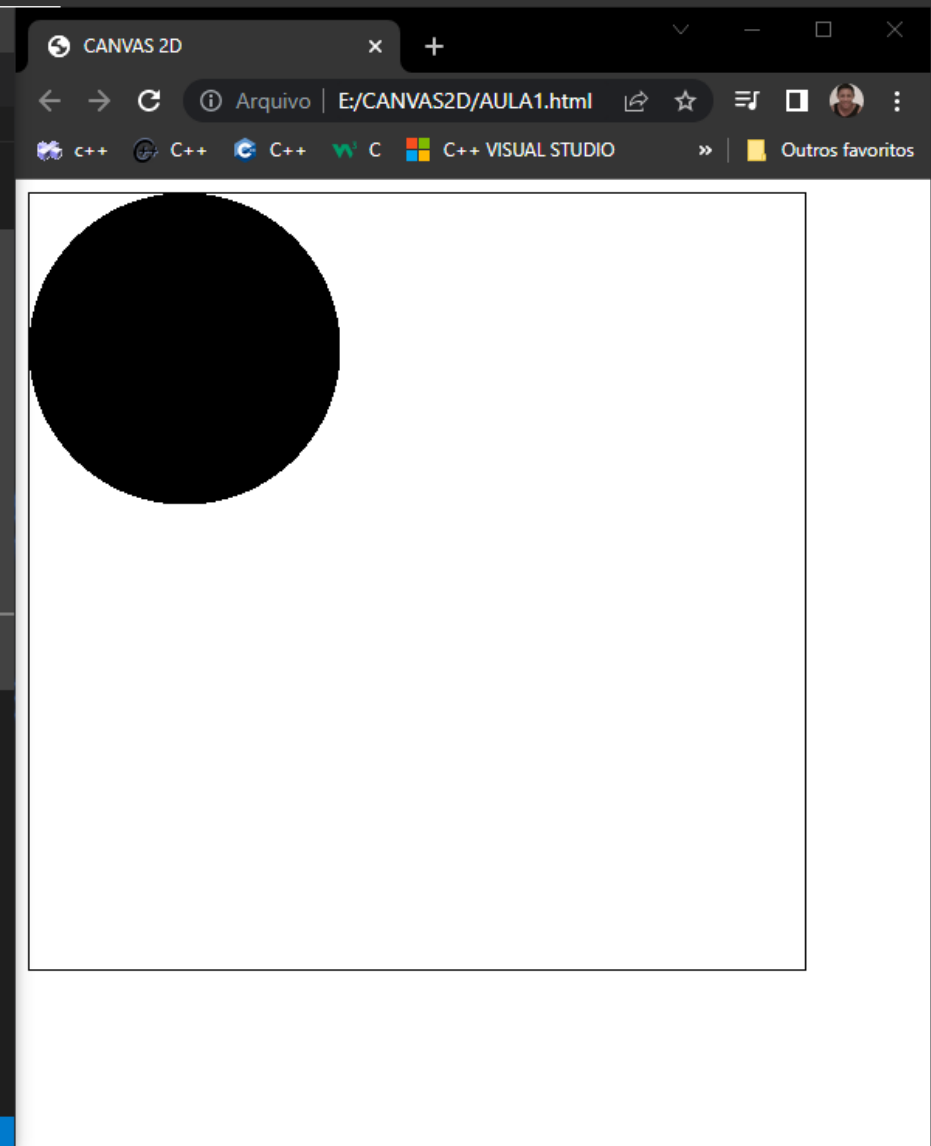


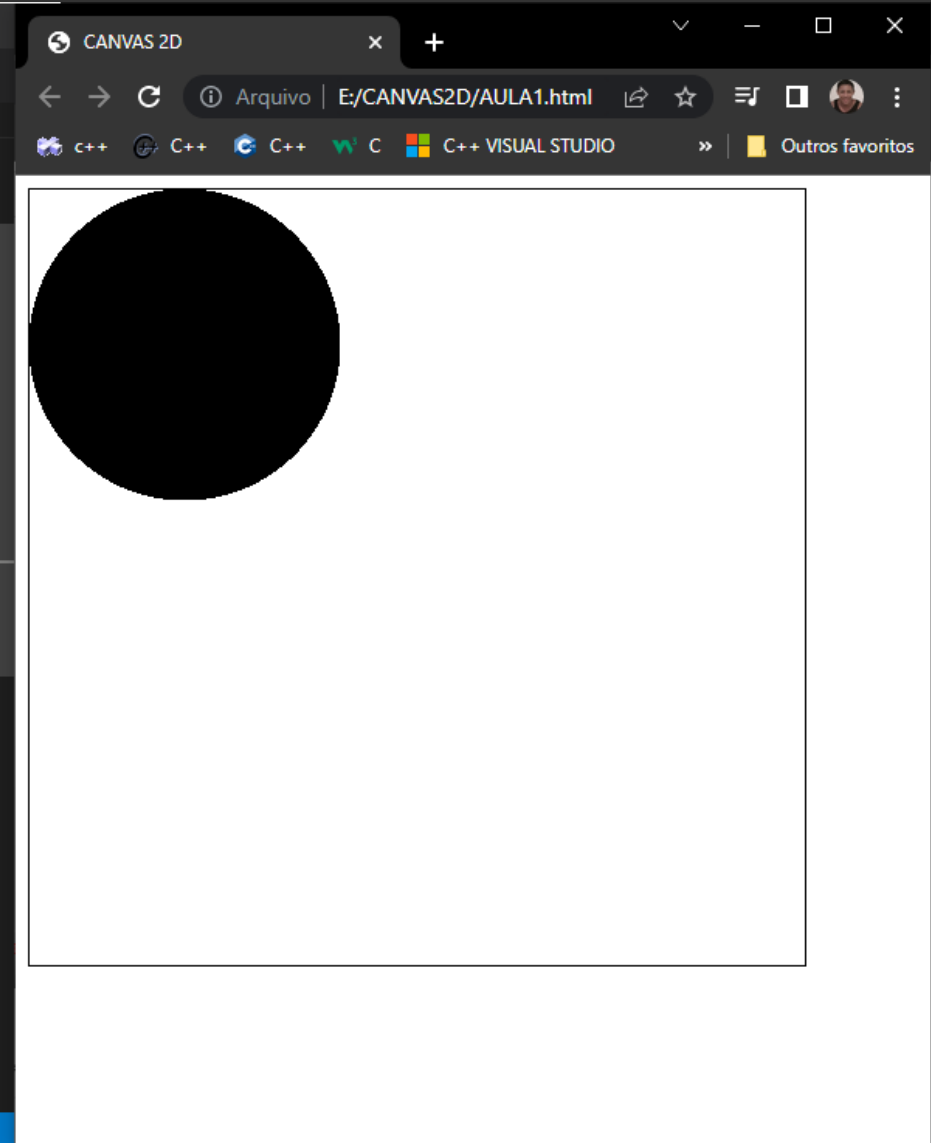

```
Arquivo  Editar  Seleção  Ver  Acessar  ...  AULA1.html - CANVAS2D - Vis...  0%  -  □  ×

AULA1.html ×
AULA1.html > html > body > script
/
8  <title>CANVAS 2D</title>
9  <style type="text/css">
10     #desenho1{
11         border: 1px solid □ #000;
12     }
13 </style>
14 </head>
15 <body>
16     <canvas id="desenho1" width="500" height="500">
17         <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18     </canvas>
19     <script type="text/javascript">
20         let canvas = document.getElementById("desenho1");
21         let ctx = canvas.getContext("2d");
22
23         function desenha(){
24
25             // posX, posY, raio, angIni, angFim, sentido
26             // sentido: true-horário / false:anti-horario
27             // (PI/180)*ang_grau
28             ctx.fillStyle="#000";
29             ctx.arc(100,100,100,(Math.PI/180)*0,(Math.PI/180)*360,true);
30             ctx.fill();
31             ctx.beginPath();
32             anima = requestAnimationFrame(desenha);
33         }
34         desenha();
35
36     </script>
37 </body>
38 </html>
```



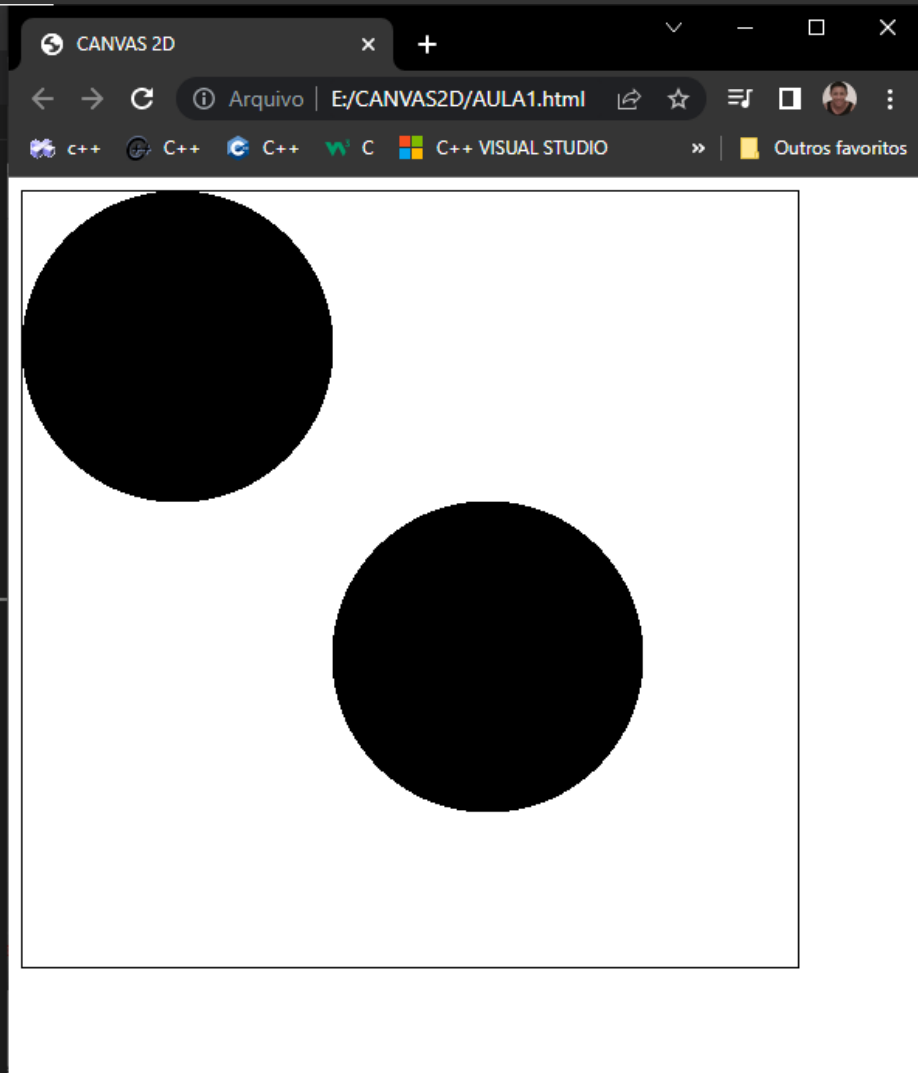
```
Arquivo  Editar  Seleção  Ver  Acessar  ...  AULA1.html - CANVAS2D - Vis...  0%  -  □  ×

AULA1.html ×
AULA1.html > html > body > script > desenha
/
<title>CANVAS 2D</title>
8   <style type="text/css">
9       #desenho1{
10           border: 1px solid □ #000;
11       }
12   </style>
13 </head>
14 <body>
15
16   <canvas id="desenho1" width="500" height="500">
17       <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18   </canvas>
19   <script type="text/javascript">
20       let canvas    = document.getElementById("desenho1");
21       let ctx        = canvas.getContext("2d");
22
23       function desenha(){
24
25           // posX, posY, raio, angIni, angFim, sentido
26           // sentido: true-horário / false:anti-horario
27           // (PI/180)*ang_grau
28           ctx.beginPath();
29           ctx.fillStyle="#000";
30           ctx.arc(100,100,100,(Math.PI/180)*0,(Math.PI/180)*360,true);
31           ctx.fill();
32
33           anima = requestAnimationFrame(desenha);
34       }
35       desenha();
36
37   </script>
38 </body>
39 </html>
```



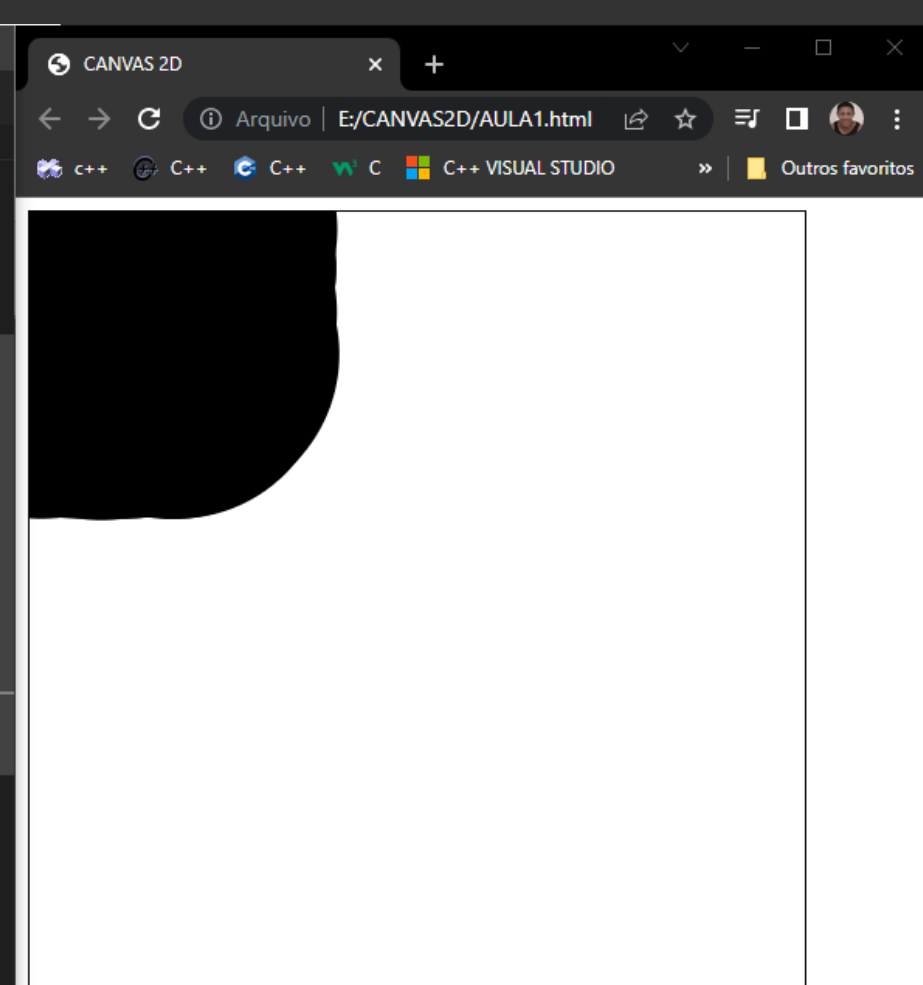
```
Arquivo  Editar  Seleção  Ver  Acessar  ...  AULA1.html - CANVAS2D - Vis...  00%  -  □  ×

AULA1.html ×
AULA1.html > html > body > script > desenho
14 <body>
15
16 <canvas id="desenho1" width="500" height="500">
17   <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18 </canvas>
19 <script type="text/javascript">
20   let canvas  = document.getElementById("desenho1");
21   let ctx     = canvas.getContext("2d");
22
23   function desenha(){
24
25     // posX, posY, raio, angIni, angFim, sentido
26     // sentido: true-horário / false:anti-horario
27     // (PI/180)*ang_grau
28     ctx.beginPath();
29     ctx.fillStyle="#000";
30     ctx.arc(100,100,100,(Math.PI/180)*0,(Math.PI/180)*360,true);
31     ctx.fill();
32
33     ctx.beginPath();
34     ctx.fillStyle="#000";
35     ctx.arc(300,300,100,(Math.PI/180)*0,(Math.PI/180)*360,true);
36     ctx.fill();
37
38     anima = requestAnimationFrame(desenha);
39   }
40   desenha();
41
42 </script>
43 </body>
44 </html>
```



```
Arquivo  Editar  Seleção  Ver  Acessar  ...  AULA1.html - CANVAS2D - Vis...  0%  -  □  ×

AULA1.html ×
AULA1.html > html
14 <body>
15
16 <canvas id="desenho1" width="500" height="500">
17   <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18 </canvas>
19 <script type="text/javascript">
20   let canvas = document.getElementById("desenho1");
21   let ctx = canvas.getContext("2d");
22
23   function desenha(){
24
25     // posX, posY, raio, angIni, angFim, sentido
26     // sentido: true-horário / false:anti-horario
27     // (PI/180)*ang_grau
28     for(let i =0; i<10; i++){
29       ctx.beginPath();
30       ctx.fillStyle="#000";
31       ctx.arc(Math.random()*100,Math.random()*100,Math.random()*
32       ctx.fill();
33     }
34
35     anima = requestAnimationFrame(desenha);
36   }
37   desenha();
38
39 </script>
40 </body>
41 </html>
```



```
for(let i =0; i<10; i++){  
  ctx.beginPath();  
  ctx.fillStyle="#000";  
  ctx.arc(Math.random()*100,Math.random()*100,Math.random()*100,(Math.PI/180)*0,(Math.PI/180)*360,true);  
  ctx.fill();  
}
```



AULA1.html X



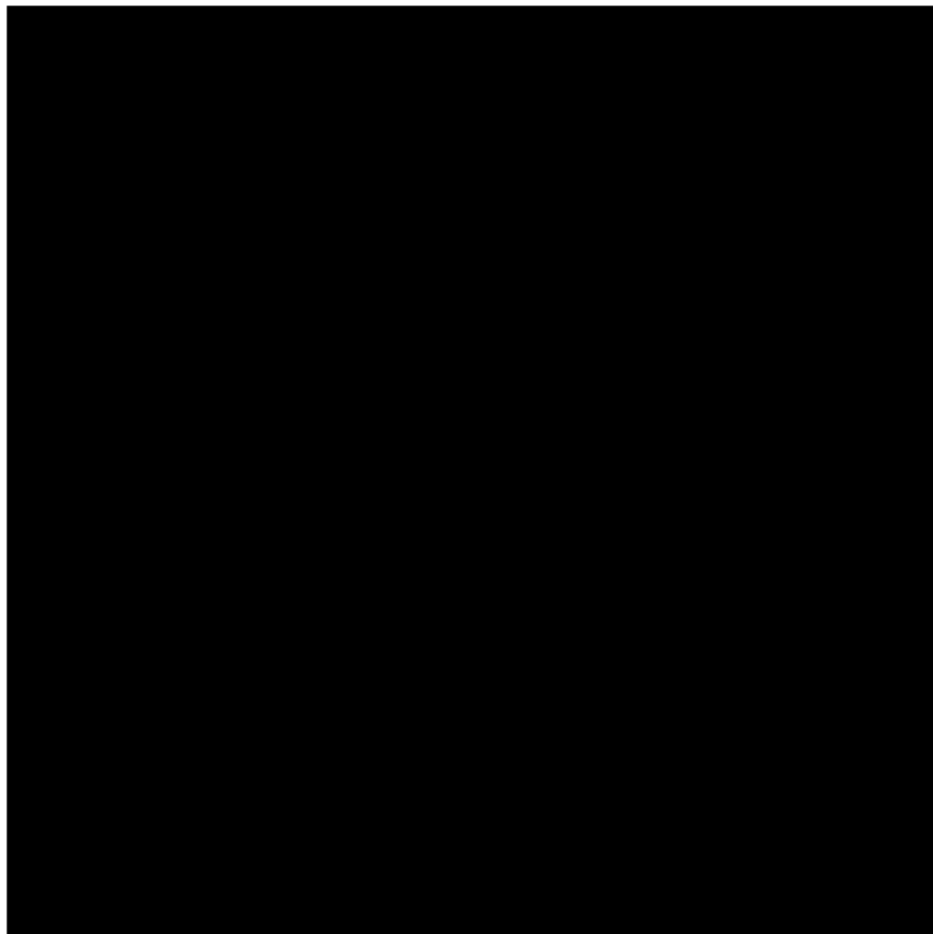
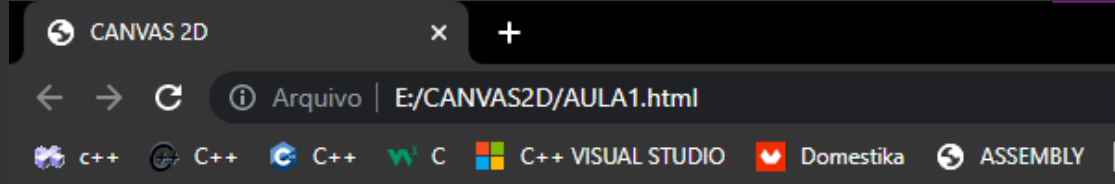
AULA1.html > html

```
14 <body>
15
16 <canvas id="desenho1" width="500" height="500">
17   <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18 </canvas>
19 <script type="text/javascript">
20   let canvas = document.getElementById("desenho1");
21   let ctx = canvas.getContext("2d");
22
23   function desenha(){
24
25     // posX, posY, raio, angIni, angFim, sentido
26     // sentido: true-horário / false:anti-horario
27     // (PI/180)*ang_grau
28     for(let i =0; i<10; i++){
29       ctx.beginPath();
30       ctx.fillStyle="#000";
31       ctx.arc(Math.random()*100,Math.random()*100,Math.random()*100,(Math.PI/180)*0,(Math.PI/180)*360,true);
32       ctx.fill();
33     }
34
35     anima = requestAnimationFrame(desenha);
36   }
37   desenha();
38
39 </script>
40 </body>
41 </html>
```

AULA1.html X

AULA1.html > html

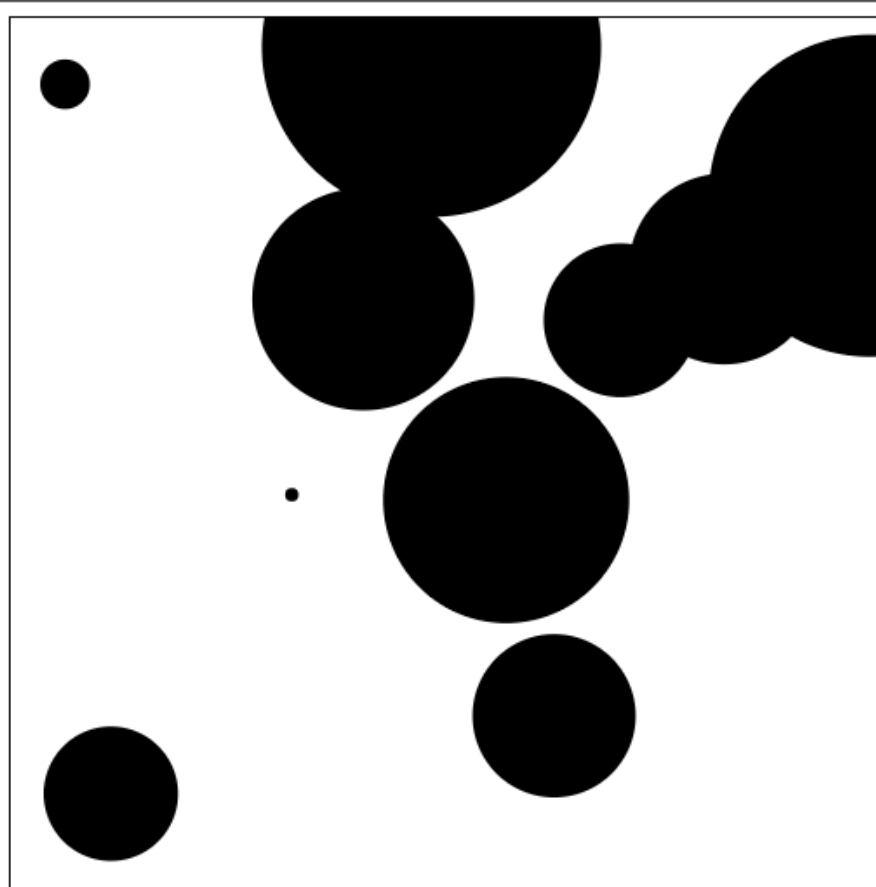
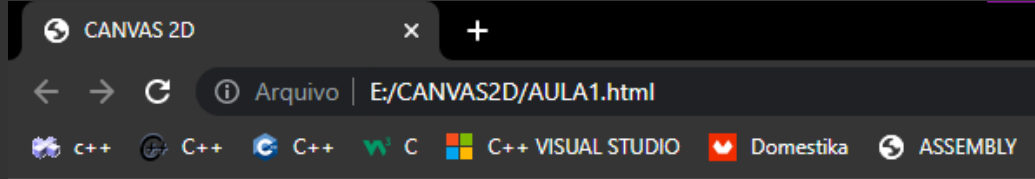
```
14 <body>
15
16 <canvas id="desenho1" width="500" height="500">
17   <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18 </canvas>
19 <script type="text/javascript">
20   let canvas = document.getElementById("desenho1");
21   let ctx = canvas.getContext("2d");
22
23   function desenha(){
24
25     // posX, posY, raio, angIni, angFim, sentido
26     // sentido: true-horário / false:anti-horario
27     // (PI/180)*ang_grau
28     for(let i =0; i<10; i++){
29       ctx.beginPath();
30       ctx.fillStyle="#000";
31       ctx.arc(Math.random()*500,Math.random()*500,Math.random()*100,(Math.PI/180)*0,(Math.PI/180)*360,true);
32       ctx.fill();
33     }
34
35     anima = requestAnimationFrame(desenha);
36   }
37   desenha();
38
39 </script>
40 </body>
41 </html>
```

AULA1.html X

AULA1.html > html > body > script > desenha

```
14 <body>
15
16 <canvas id="desenho1" width="500" height="500">
17   <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18 </canvas>
19 <script type="text/javascript">
20   let canvas = document.getElementById("desenho1");
21   let ctx = canvas.getContext("2d");
22
23   function desenha(){
24     // posX, posY, raio, angIni, angFim, sentido
25     // sentido: true-horário / false:anti-horario
26     // (PI/180)*ang_grau
27     for(let i =0; i<10; i++){
28       ctx.beginPath();
29       ctx.fillStyle="#000";
30       ctx.arc(Math.random()*500,Math.random()*500,Math.random()*100,(Math.PI/180)*0,(Math.PI/180)*360,true);
31       ctx.fill();
32     }
33
34     // anima = requestAnimationFrame(desenha);
35
36   }
37   desenha();
38
39 </script>
40 </body>
41 </html>
```

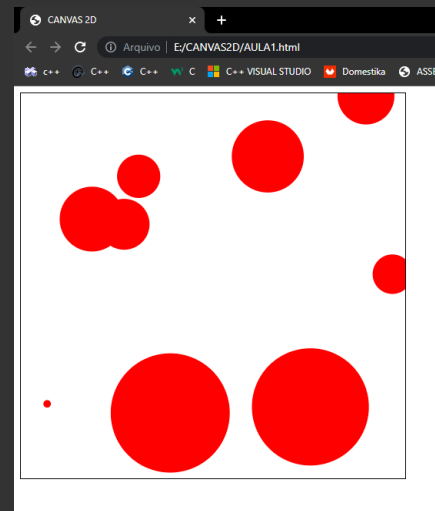
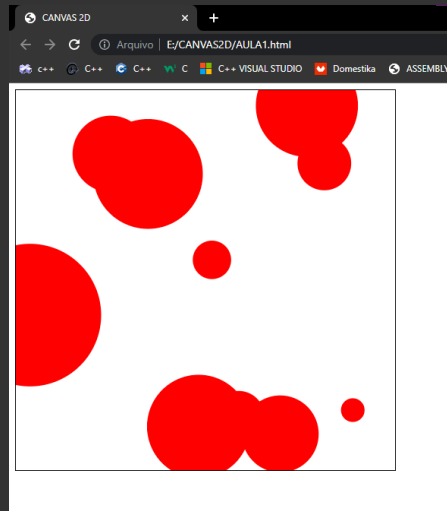
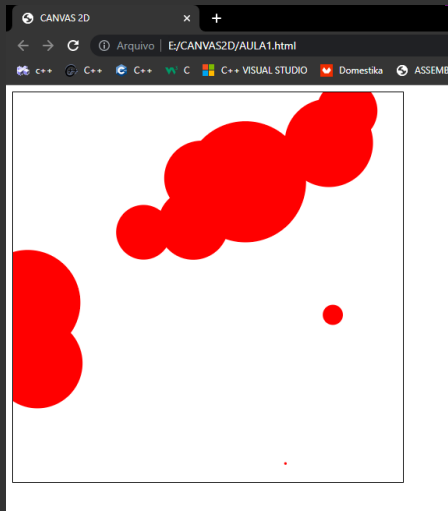
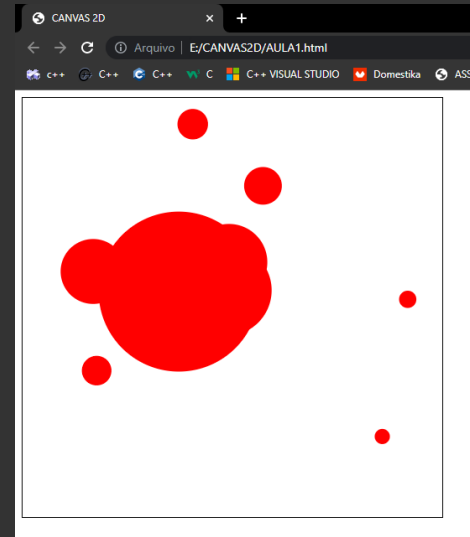
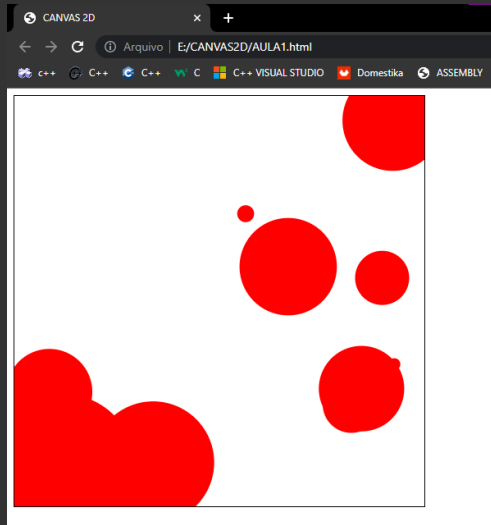
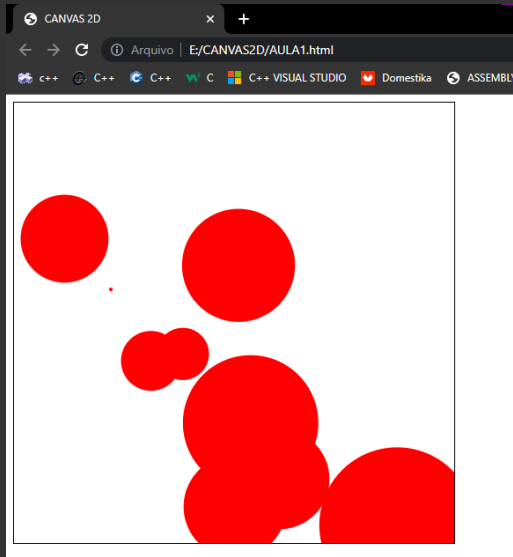


Cada vez que for atualizada surge um
Novo desenho

AULA1.html X

AULA1.html > html > body > script

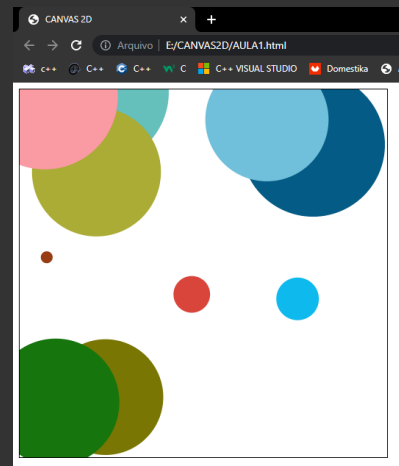
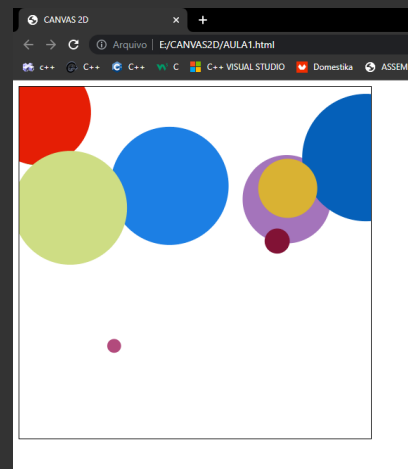
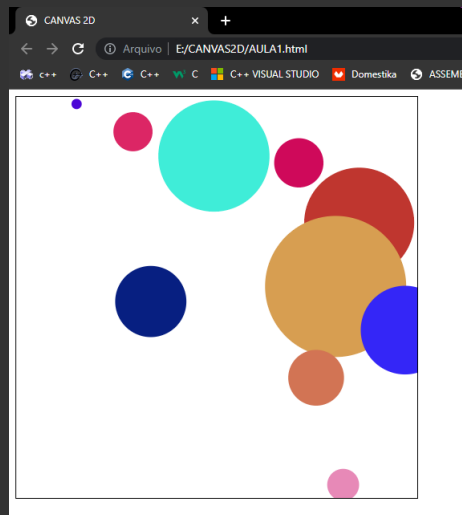
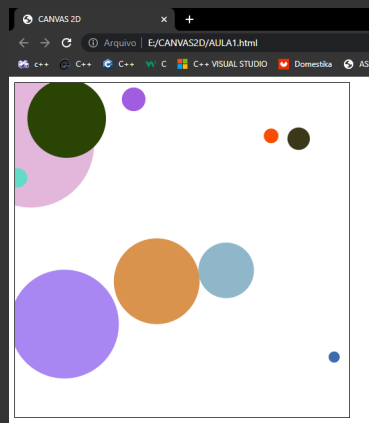
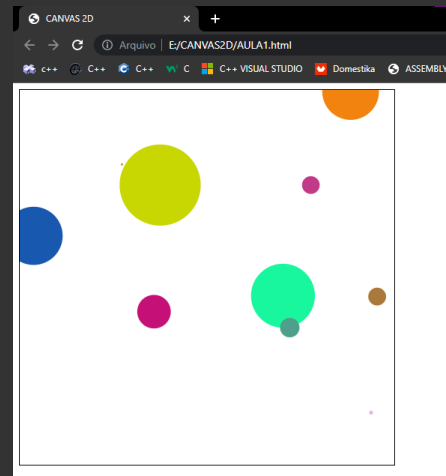
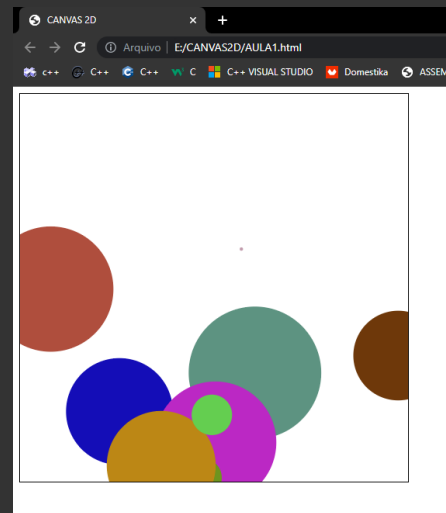
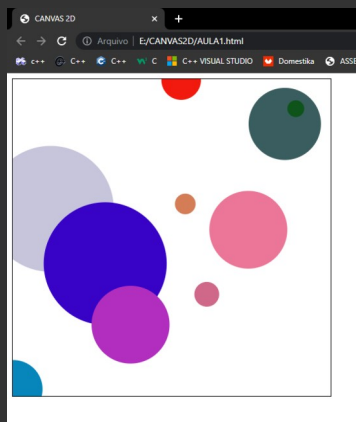
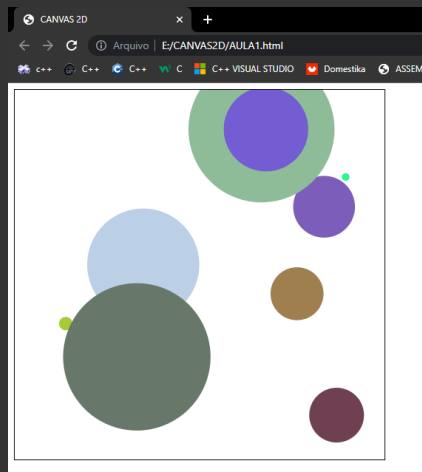
```
14 <body>
15
16 <canvas id="desenho1" width="500" height="500">
17   <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18 </canvas>
19 <script type="text/javascript">
20   let canvas = document.getElementById("desenho1");
21   let ctx = canvas.getContext("2d");
22
23   function desenha(){
24
25     // posX, posY, raio, angIni, angFim, sentido
26     // sentido: true-horário / false:anti-horario
27     // (PI/180)*ang_grau
28     for(let i =0; i<10; i++){
29       ctx.beginPath();
30       ctx.fillStyle="rgb(255,0,0)";
31       ctx.arc(Math.random()*500,Math.random()*500,Math.random()*100,(Math.PI/180)*0,(Math.PI/180)*360,true);
32       ctx.fill();
33     }
34
35     // anima = requestAnimationFrame(desenha);
36   }
37   desenha();
38
39 </script>
40 </body>
41 </html>
```



AULA1.html X

AULA1.html > html > body > script

```
14 <body>
15
16 <canvas id="desenho1" width="500" height="500">
17   <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18 </canvas>
19 <script type="text/javascript">
20   let canvas = document.getElementById("desenho1");
21   let ctx = canvas.getContext("2d");
22
23   function desenha(){
24
25     // posX, posY, raio, angIni, angFim, sentido
26     // sentido: true-horário / false:anti-horario
27     // (PI/180)*ang_grau
28     for(let i =0; i<10; i++){
29       ctx.beginPath();
30       ctx.fillStyle="rgb("+Math.random()*250+", "+Math.random()*250+", "+Math.random()*250+"");
31       ctx.arc(Math.random()*500,Math.random()*500,Math.random()*100,(Math.PI/180)*0,(Math.PI/180)*360,true);
32       ctx.fill();
33     }
34
35     // anima = requestAnimationFrame(desenha);
36   }
37   desenha();
38
39 </script>
40 </body>
41 </html>
```



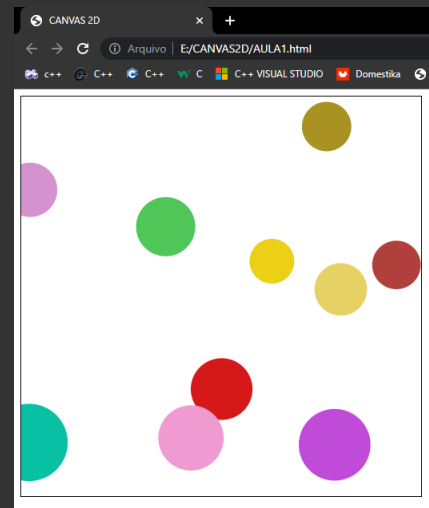
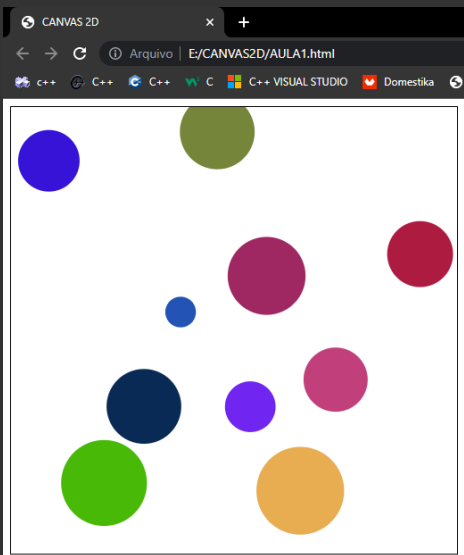
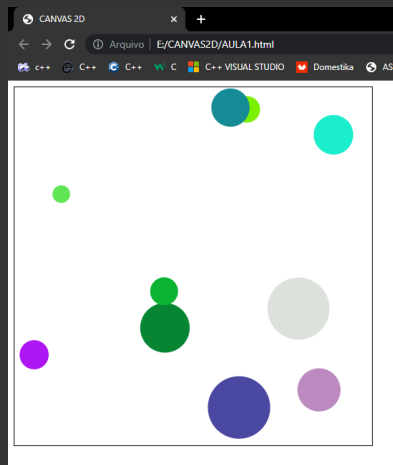
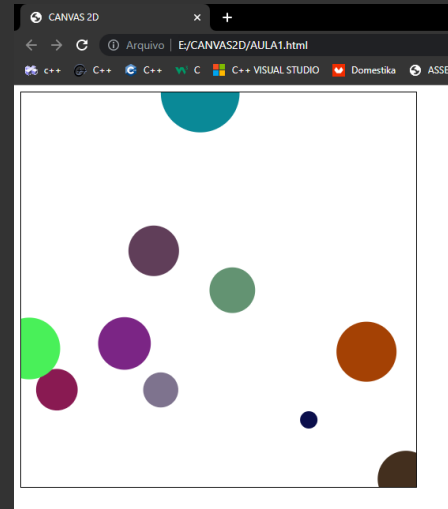
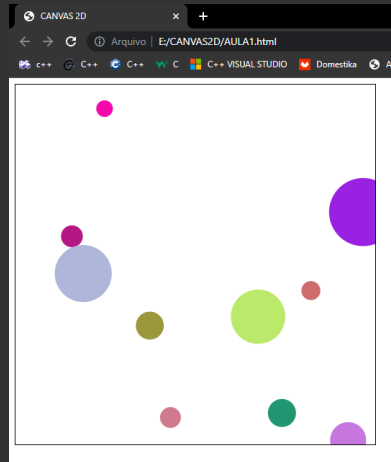
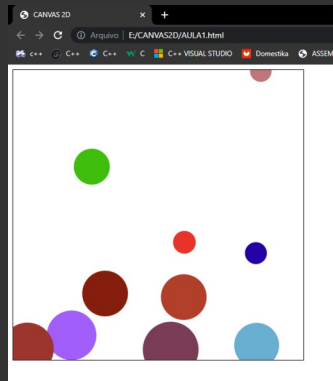


AULA1.html X



AULA1.html > html > body > script > desenha

```
11     }
12     </style>
13 </head>
14 <body>
15
16     <canvas id="desenho1" width="500" height="500">
17         <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18     </canvas>
19     <script type="text/javascript">
20         let canvas = document.getElementById("desenho1");
21         let ctx = canvas.getContext("2d");
22
23         let tamMax = 40;
24         let tamMin = 10;
25
26         function desenha(){
27
28             // posX, posY, raio, angIni, angFim, sentido
29             // sentido: true-horário / false:anti-horario
30             // (PI/180)*ang_grau
31             for(let i =0; i<10; i++){
32                 ctx.beginPath();
33                 ctx.fillStyle="rgb("+Math.random()*250+", "+Math.random()*250+", "+Math.random()*250+)";
34                 ctx.arc(Math.random()*500,Math.random()*500,Math.random()*tamMax+tamMin,(Math.PI/180)*0,(Math.PI/180)*360,true);
35                 ctx.fill();
36             }
37
38             // anima = requestAnimationFrame(desenha);
39         }
40         desenha();
41
42     </script>
43 </body>
```

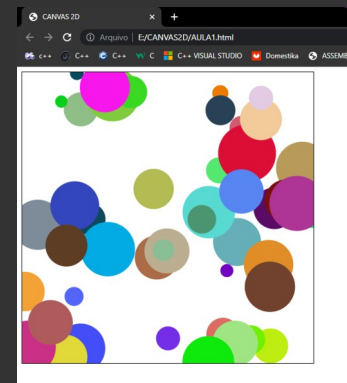
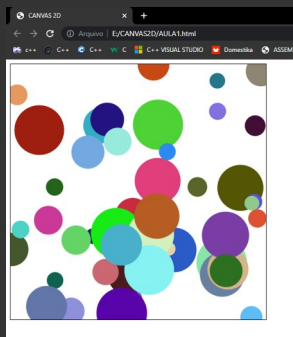
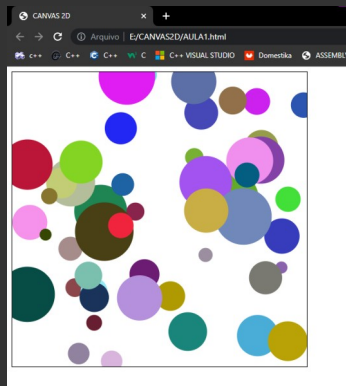
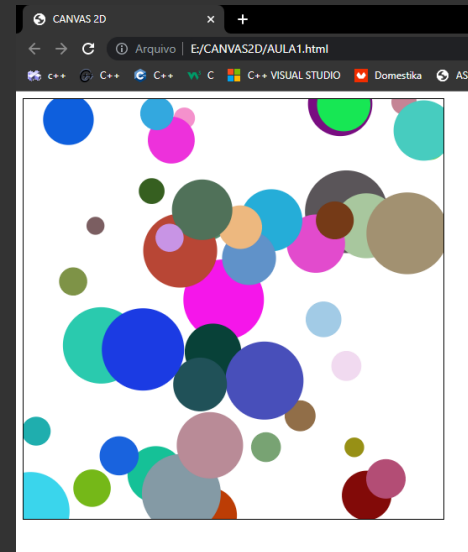
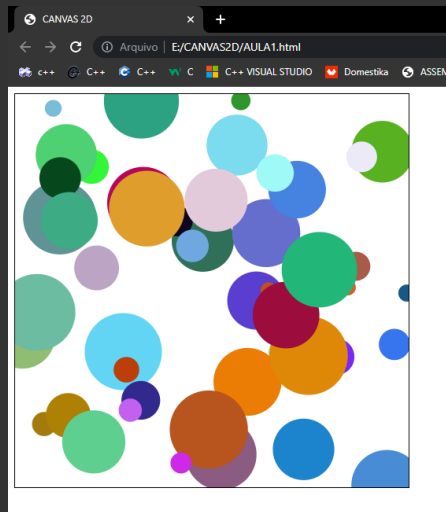
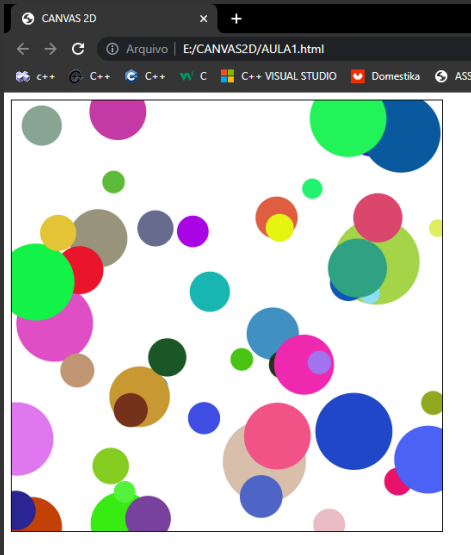


AULA1.html X



AULA1.html > html > body > script > desenha

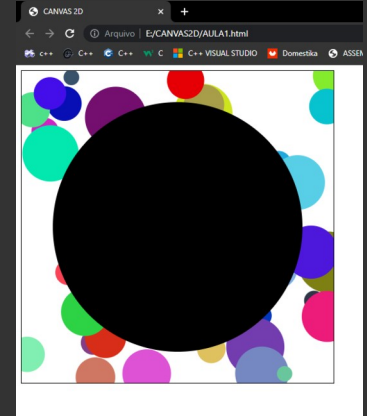
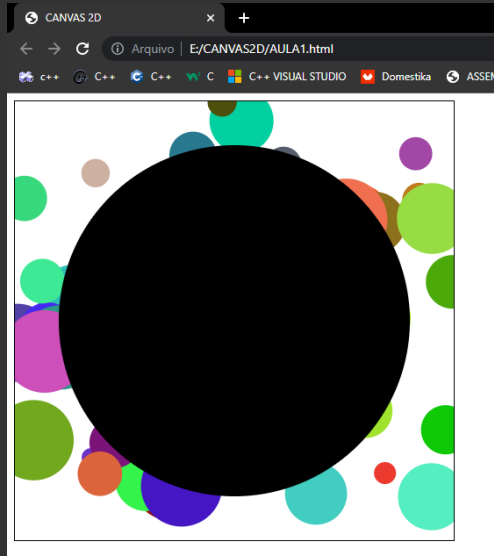
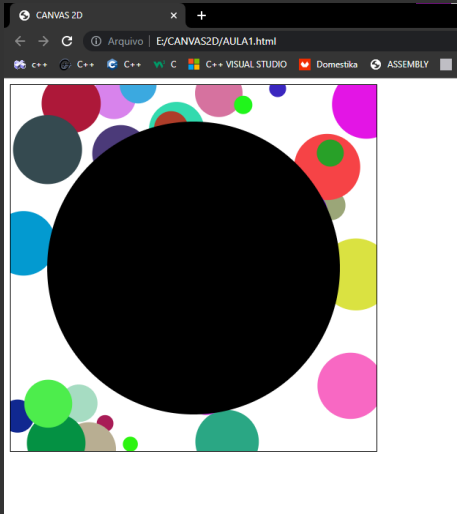
```
11     }
12   </style>
13 </head>
14 <body>
15
16   <canvas id="desenho1" width="500" height="500">
17     <p>CRISTIANO TEM SUPORTE PARA ESSE CANVAS</p>
18   </canvas>
19   <script type="text/javascript">
20     let canvas = document.getElementById("desenho1");
21     let ctx = canvas.getContext("2d");
22
23     let tamMax = 40;
24     let tamMin = 10;
25     let maxCirculos = 50;
26
27     function desenha()
28     {
29       // posX, posY, raio, angIni, angFim, sentido
30       // sentido: true-horário / false:anti-horario
31       // (PI/180)*ang_grau
32       for(let i =0; i<maxCirculos; i++){
33         ctx.beginPath();
34         ctx.fillStyle="rgb("+Math.random()*250+", "+Math.random()*250+", "+Math.random()*250+)";
35         ctx.arc(Math.random()*500,Math.random()*500,Math.random()*tamMax+tamMin,(Math.PI/180)*0,(Math.PI/180)*360,true);
36         ctx.fill();
37       }
38
39       // anima = requestAnimationFrame(desenha);
40     }
41     desenha();
42
43   </script>
```

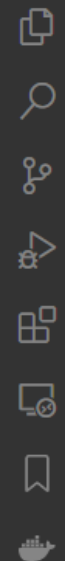


AULA1.html X

AULA1.html > html > body > script

```
19 <script type= text/javascript >
20     let canvas    = document.getElementById("desenho1");
21     let ctx       = canvas.getContext("2d");
22
23     let tamMax    = 40;
24     let tamMin    = 10;
25     let maxCirculos = 50;
26
27     function desenha(){
28
29         // posX, posY, raio, angIni, angFim, sentido
30         // sentido: true-horário / false:anti-horario
31         // (PI/180)*ang_grau
32         for(let i =0; i<maxCirculos; i++){
33             ctx.beginPath();
34             ctx.fillStyle="rgb("+Math.random()*250+", "+Math.random()*250+", "+Math.random()*250+"");
35             ctx.arc(Math.random()*500,Math.random()*500,Math.random()*tamMax+tamMin,(Math.PI/180)*0,(Math.PI/180)*360,true);
36             ctx.fill();
37         }
38
39         ctx.beginPath();
40         ctx.fillStyle="#000";
41         ctx.arc(250,250,200,(Math.PI/180)*0,(Math.PI/180)*360,false);
42         ctx.fill();
43
44         // anima = requestAnimationFrame(desenha);
45     }
46     desenha();
47
48 </script>
49 </body>
50 </html>
```



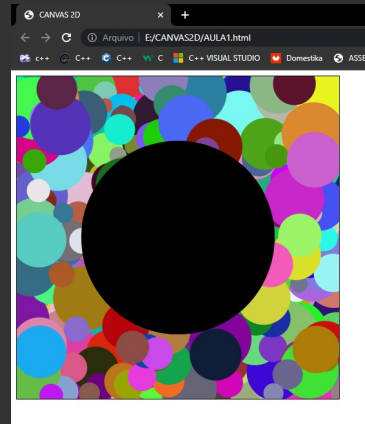
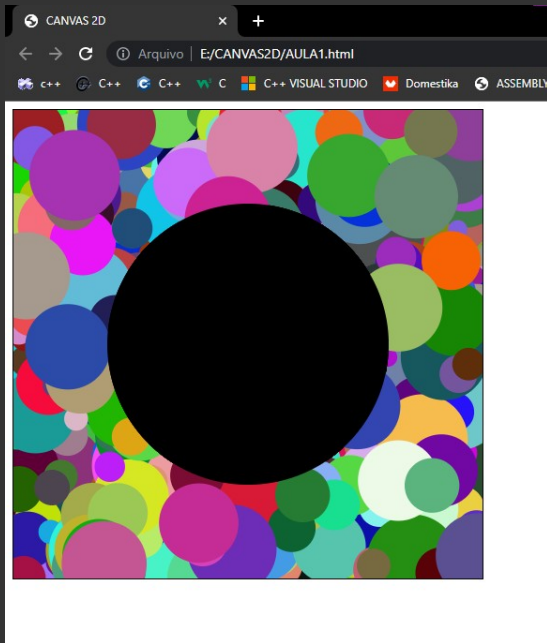


AULA1.html ×

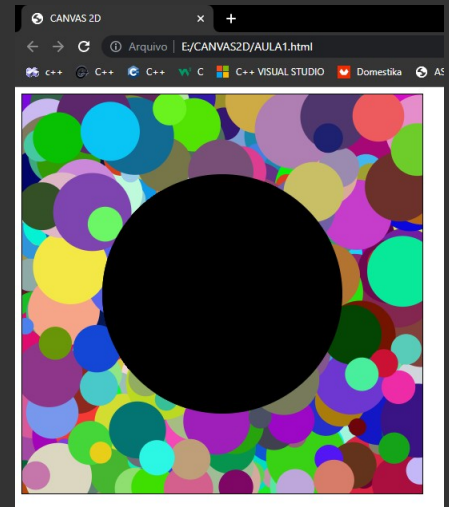
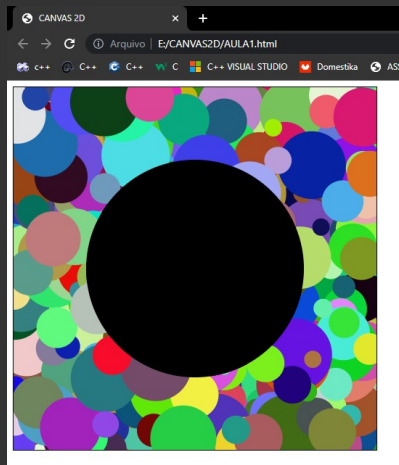
AULA1.html > html > body > script > desenha

```
19 <script type= text/javascript >
20     let canvas    = document.getElementById("desenho1");
21     let ctx        = canvas.getContext("2d");
22
23     let tamMax     = 40;
24     let tamMin     = 10;
25     let maxCirculos = 50;
26
27     function desenha(){
28
29         // posX, posY, raio, angIni, angFim, sentido
30         // sentido: true-horário / false:anti-horario
31         // (PI/180)*ang_grau
32         for(let i =0; i<maxCirculos; i++){
33             ctx.beginPath();
34             ctx.fillStyle="rgb("+Math.random()*250+", "+Math.random()*250+", "+Math.random()*250+)";
35             ctx.arc(Math.random()*500,Math.random()*500,Math.random()*tamMax+tamMin,(Math.PI/180)*0,(Math.PI/180)*360,true);
36             ctx.fill();
37         }
38
39         ctx.beginPath();
40         ctx.fillStyle="#000";
41         ctx.arc(250,250,150,(Math.PI/180)*0,(Math.PI/180)*360,false);
42         ctx.fill();
43
44         anima = requestAnimationFrame(desenha);
45     }
46     desenha();
47
48 </script>
49 </body>
50 </html>
```





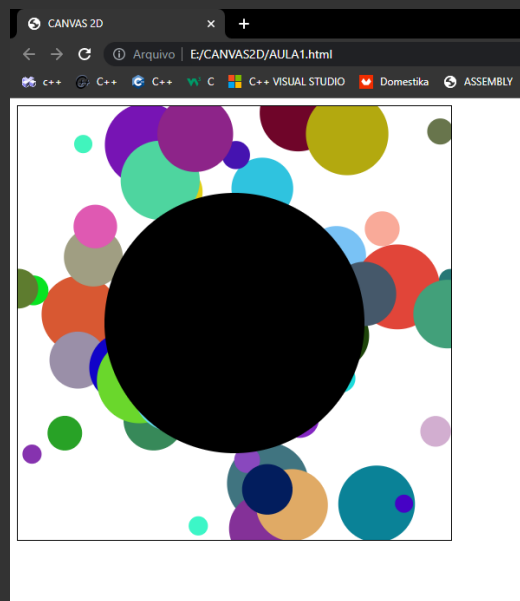
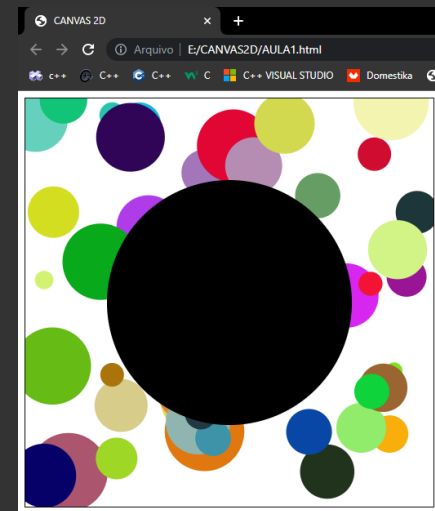
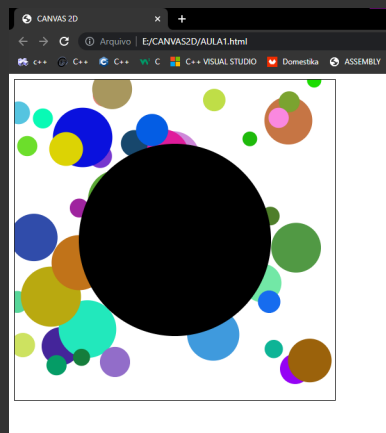
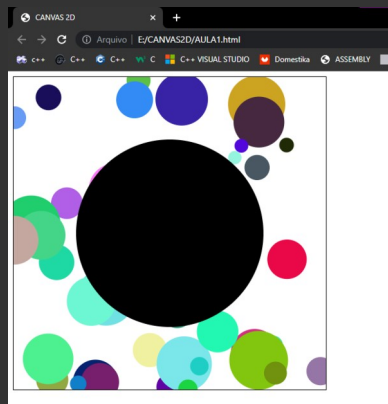
É exibido uma animação
Frenética dos círculos



AULA1.html X

AULA1.html > html > body > script

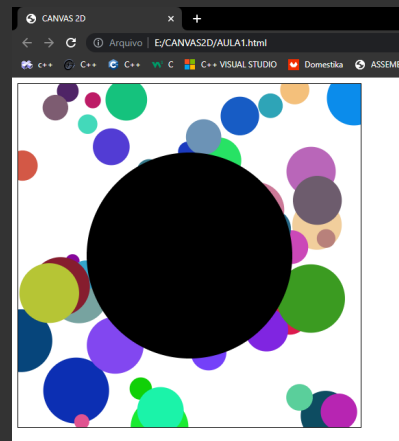
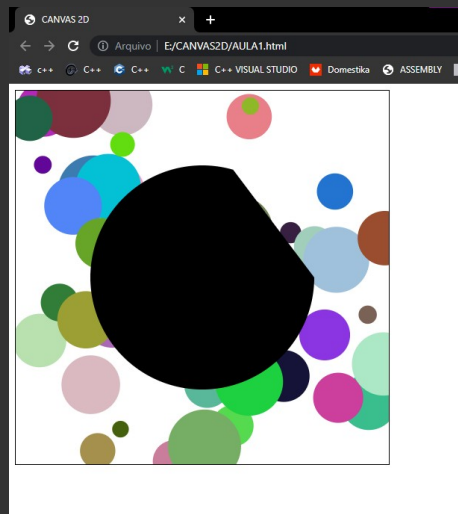
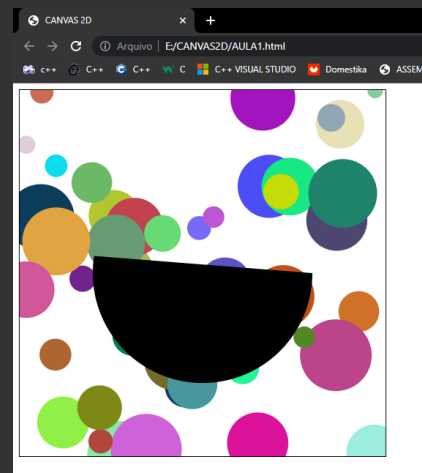
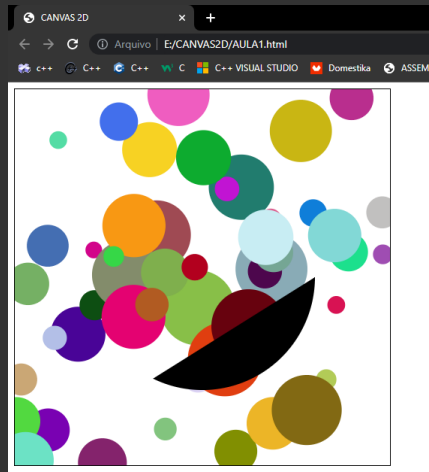
```
20 let canvas = document.getElementById("desenho1");
21 let ctx = canvas.getContext("2d");
22
23 let tamMax = 40;
24 let tamMin = 10;
25 let maxCirculos = 50;
26
27 function desenha(){
28
29     ctx.clearRect(0,0,500,500);
30
31     // posX, posY, raio, angIni, angFim, sentido
32     // sentido: true-horário / false:anti-horario
33     // (PI/180)*ang_grau
34     for(let i =0; i<maxCirculos; i++){
35         ctx.beginPath();
36         ctx.fillStyle="rgb("+Math.random()*250+", "+Math.random()*250+", "+Math.random()*250+"");
37         ctx.arc(Math.random()*500,Math.random()*500,Math.random()*tamMax+tamMin,(Math.PI/180)*0,(Math.PI/180)*360,true);
38         ctx.fill();
39     }
40
41     ctx.beginPath();
42     ctx.fillStyle="#000";
43     ctx.arc(250,250,150,(Math.PI/180)*0,(Math.PI/180)*360,false);
44     ctx.fill();
45
46     anima = requestAnimationFrame(desenha);
47 }
48 desenha();
49
50 </script>
51 </body>
52 </html>
```

AULA1.html X

AULA1.html > html > body > script > desenha

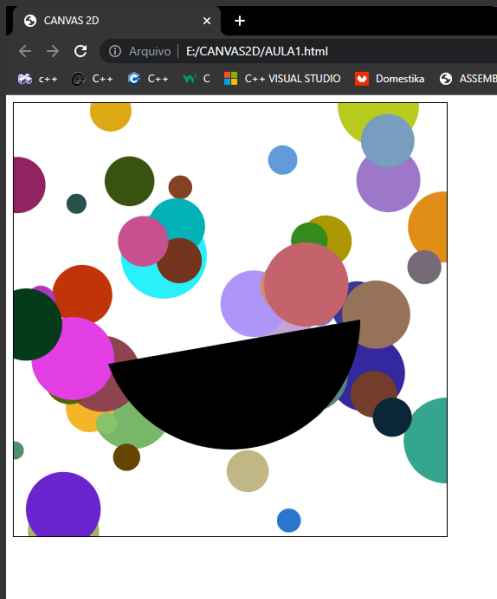
```
21 let ctx = canvas.getContext("2d");
22
23 let tamMax = 40;
24 let tamMin = 10;
25 let maxCirculos = 50;
26 let angIni = 0;
27 let angFim = 0;
28
29 function desenha(){
30
31     ctx.clearRect(0,0,500,500);
32
33     // posX, posY, raio, angIni, angFim, sentido
34     // sentido: true-horário / false:anti-horario
35     // (PI/180)*ang_grau
36     for(let i =0; i<maxCirculos; i++){
37         ctx.beginPath();
38         ctx.fillStyle="rgb("+Math.random()*250+", "+Math.random()*250+", "+Math.random()*250+"");
39         ctx.arc(Math.random()*500,Math.random()*500,Math.random()*tamMax+tamMin,(Math.PI/180)*0,(Math.PI/180)*360,true);
40         ctx.fill();
41     }
42
43     ctx.beginPath();
44     ctx.fillStyle="#000";
45     ctx.arc(250,250,150,(Math.PI/180)*angIni,(Math.PI/180)*angFim,false);
46     ctx.fill();
47
48     angFim++;
49
50     anima = requestAnimationFrame(desenha);
51 }
52 desenha();
53
```



AULA1.html X

AULA1.html > html > body > script > desenha

```
26     let angIni      = 0;
27     let angFim      = 0;
28
29     function desenha(){
30
31         ctx.clearRect(0,0,500,500);
32
33         // posX, posY, raio, angIni, angFim, sentido
34         // sentido: true-horário / false:anti-horario
35         // (PI/180)*ang_grau
36         for(let i =0; i<maxCirculos; i++){
37             ctx.beginPath();
38             ctx.fillStyle="rgb("+Math.random()*250+", "+Math.random()*250+", "+Math.random()*250+"");
39             ctx.arc(Math.random()*500,Math.random()*500,Math.random()*tamMax+tamMin,(Math.PI/180)*0,(Math.PI/180)*360,true);
40             ctx.fill();
41         }
42
43         ctx.beginPath();
44         ctx.fillStyle="#000";
45         ctx.arc(250,250,150,(Math.PI/180)*angIni,(Math.PI/180)*angFim,false);
46         ctx.fill();
47
48         angFim++;
49         if(angFim>360)
50             angFim=0
51
52         anima = requestAnimationFrame(desenha);
53     }
54     desenha();
55
56 </script>
57 </body>
58 </html>
```



```
O if(angFim>360){  
    angFim=0  
}
```

Faz o circulo ser redesenhado

