

Canvas: The Tutorial

So, you've been learning
some JavaScript

And you're all amazing.

No, really. The
questions are fantastic

As is the progress

**Let's put some things into
practice**

Canvas Element

```
<canvas id="cvs"></canvas>
```


Default width: 300px

Default height: 150px

Real stuff happens in the
‘Context’

```
<canvas id="cvs"></canvas>
```

```
var canv = document.querySelector( “#cvs” );  
var context = canv.getContext( ‘2d’ );
```

Context is what you
use for drawing

```
arc();  
beginPath();  
clearRect();  
fill();  
fillText();  
lineTo();  
moveTo();  
stroke();
```

**All methods on
context.**

Drawing Shapes

**First, draw invisible
path.**

Use beginPath to start

```
var canv = document.querySelector( "#cvs" );  
var context = canv.getContext( '2d' );  
context.fillStyle = 'black';  
context.beginPath();
```

```
var x = canv.width/2;  
var y = canv.height/2;  
var radius = (function(){  
    var rad;  
    if( x < y ){  
        return x;  
    }  
    return y;  
})();  
var startDeg = 0;  
var endDeg = Math.PI;  
var counterClockwise = true;  
context.arc( x, y, radius, startDeg, endDeg,  
counterClockwise );  
context.fill();
```

then draw

```
var canv = document.querySelector( "#cvs" );  
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```

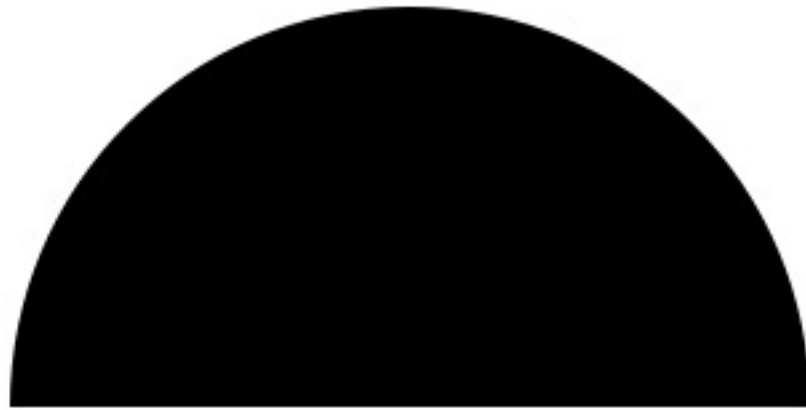
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then fill

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context.fill();
```


SEMI-CIRCLE *guitar solo*



Writing some Text

```
var canvas = document.getElementById('canvas'),  
    context = canvas.getContext('2d');
```

```
context.font = '38pt Arial';  
context.fillStyle = 'blue';  
context.strokeStyle = 'blue';  
context.textAlign = "center";
```

```
context.fillText( 'Hello Ada', canvas.width/2 ,  
canvas.height/2 );  
context.strokeText( 'Hello Ada', canvas.width/2,  
canvas.height/2 );
```

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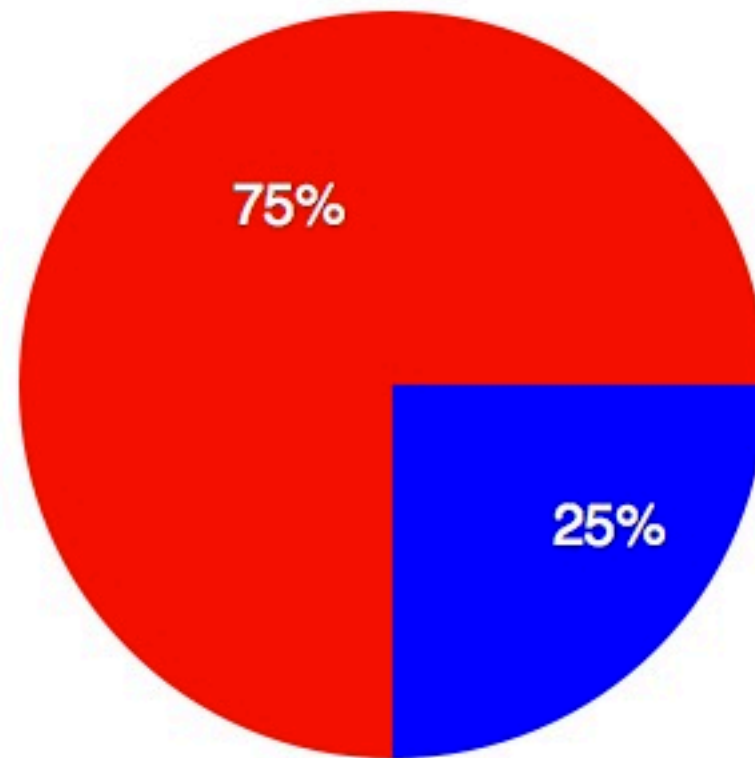
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context.fillText( 'Hello Ada', canvas.width/2 , canvas.height/2 );  
context.strokeText( 'Hello Ada', canvas.width/2, canvas.height/2 );
```

Hello Ada

Combine for Maximum Levels of Useful

example2.js !



New Returning

25 75

Rectangles

```
(function(){
  document.addEventListener( 'DOMContentLoaded', function( e ){
    var canvas = document.getElementById( 'cvs' ),
        context = canvas.getContext( '2d' );

    context.strokeRect( canvas.width/2 - 25, canvas.height/2 - 100,
50, 200 );
    context.fillRect( canvas.width/2 - 25, canvas.height/2 - 100, 50,
200 );

  });
})();
```