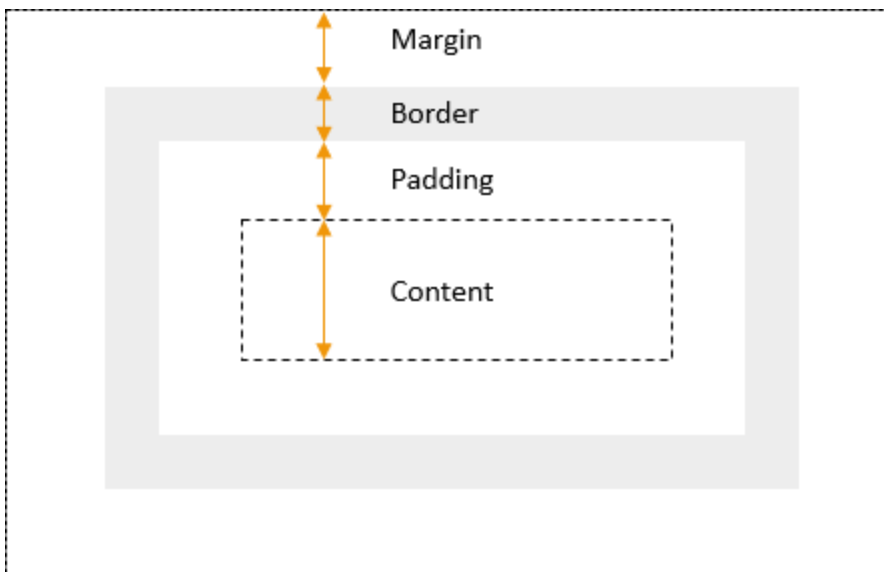


Getting the Width and Height of an Element

Summary: in this tutorial, you will learn how to get the current computed dimension of an element, including width and height.

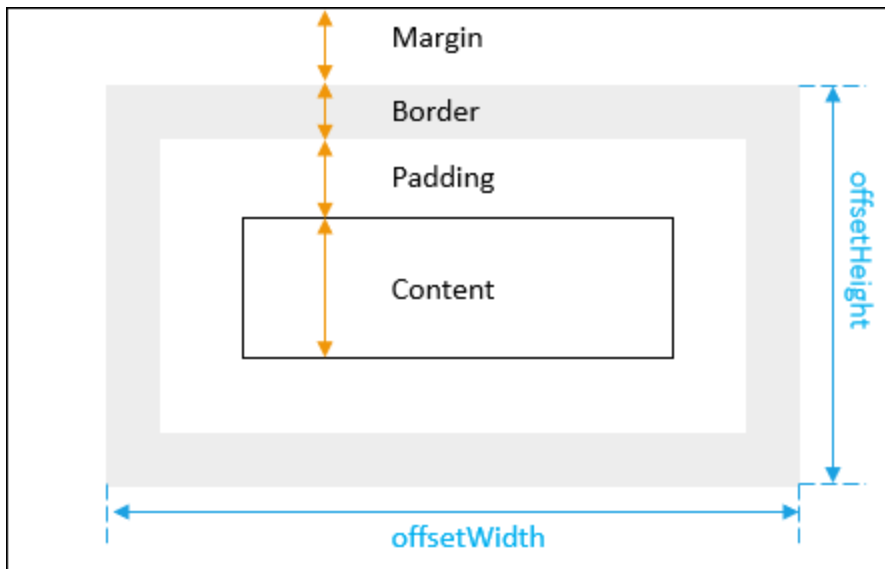
The following picture displays the CSS box model that includes a block element with content, padding, border, and margin:



To get the element's width and height including the padding and border, you use the `offsetWidth` and `offsetHeight` properties of the element:

```
let box = document.querySelector('.box');  
let width = box.offsetWidth;  
let height = box.offsetHeight;
```

The following picture illustrates the `offsetWidth` and `offsetHeight` of an element:



See the following example:

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Getting the Width and Height of an Element</title>
</head>

<body>
  <div class="box" style="width:100px;height:150px;border:solid 1px #000;padding:10px"></div>
  <script>
    let box = document.querySelector('.box');
    let width = box.offsetWidth;
    let height = box.offsetHeight;
    console.log({ width, height });
  </script>
</body>

</html>
```

Output:

```
{width: 122, height: 172}
```

In this example:

- The width is 100px
- The border is 1px on each side, so 2px for both.
- The padding is 10px on each side, so 20px for both.

Therefore, the total width is 122px. Similarly, the total height is 172px.

To get the width & height of an element as a floating point after CSS transformation, you use the `getBoundingClientRect()` method of the DOM element. For example:

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Getting the Width and Height of an Element</title>
</head>

<body>
  <div class="box" style="width:100px;height:150px;border:solid 1px #000;padding:10px"></div>
  <script>
    let box = document.querySelector('.box');
    let width = box.offsetWidth;
    let height = box.offsetHeight;
    console.log({ width, height });

    const domRect = box.getBoundingClientRect();
    console.log(domRect);
  </script>
</body>

</html>
```

Output:

```
{width: 122, height: 172}
```

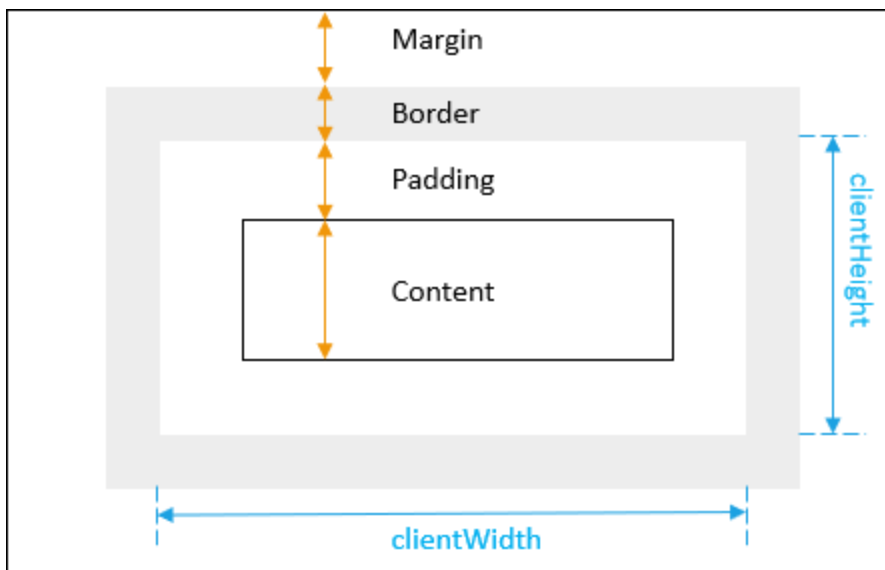
```
DOMRect {x: 7.997685432434082, y: 7.997685432434082, width: 121.95602416992188, height: 171.95602416992188}
```

clientWidth & clientHeight

To get the element's width and height that include padding but without the border, you use the `clientWidth` and `clientHeight` properties:

```
let box = document.querySelector('.box');  
let width = box.clientWidth;  
let height = box.clientHeight;
```

The following picture illustrates the `clientWidth` and `clientHeight` of an element:



To get the margin of an element, you use the `getComputedStyle()` method:

```
let box = document.querySelector('.box');  
let style = getComputedStyle(box);  
  
let marginLeft = parseInt(style.marginLeft);  
let marginRight = parseInt(style.marginRight);
```

```
let marginTop = parseInt(style.marginTop);
let marginBottom = parseInt(style.marginBottom);
```

To get the border width of an element, you use the property of the `style` object returned by the `getComputedStyle()` method:

```
let box = document.querySelector('.box');
let style = getComputedStyle(box);

let borderTopWidth = parseInt(style.borderTopWidth) || 0;
let borderLeftWidth = parseInt(style.borderLeftWidth) || 0;
let borderBottomWidth = parseInt(style.borderBottomWidth) || 0;
let borderRightWidth = parseInt(style.borderRightWidth) || 0;
```

To get the height and width of the window, you use the following code:

```
let width = window.innerWidth || document.documentElement.clientWidth || document.body.clientWidth;
let height = window.innerHeight || document.documentElement.clientHeight || document.body.clientHeight;
```

Summary

- Use `offsetWidth` & `offsetHeight` properties of the DOM element to get its width and height.

Quiz