CSS Properties

# CSS Colors

An RGB color value represents RED, GREEN, and BLUE light sources.

## **RGB Value**

In CSS, a color can be specified as an RGB value, using this formula:

**rgb(red, green, blue)**

Each parameter (red, green, and blue) defines the intensity of the color between 0 and 255.

For example, rgb(255, 0, 0) is displayed as red, because red is set to its highest value (255) and the others are set to 0.

To display black, set all color parameters to 0, like this: rgb(0, 0, 0).

To display white, set all color parameters to 255, like this: rgb(255, 255, 255).

Experiment by mixing the RGB values below:

<!DOCTYPE html>

<html>

<body>

<h1>Shades of gray</h1>

<p>By using equal values for red, green, and blue, you will get different shades of gray:</p>

<h2 style="background-color:rgb(60, 60, 60);">color1</h2>

<h2 style="background-color:rgb(90, 90, 90);"> color2</h2>

<h2 style="background-color:rgb(120, 120, 120);">color3</h2>

<h2 style="background-color:rgb(180, 180, 180);"> color4</h2>

<h2 style="background-color:rgb(210, 210, 210);"> color5</h2>

<h2 style="background-color:rgb(240, 240, 240);"> color6</h2>

</body>

</html>

# CSS HEX Colors

## **HEX Value**

In CSS, a color can be specified using a hexadecimal value in the form:

**#rrggbb**

Where rr (red), gg (green) and bb (blue) are hexadecimal values between 00 and ff (same as decimal 0-255).

For example, #ff0000 is displayed as red, because red is set to its highest value (ff) and the others are set to the lowest value (00).

To display black, set all values to 00, like this: #000000.

To display white, set all values to ff, like this: #ffffff.

Experiment by mixing the HEX values below:

<!DOCTYPE html>

<html>

<body>

<h1>Specify colors using HEX values</h1>

<h2 style="background-color:#ff0000;">#ff0000</h2>

<h2 style="background-color:#0000ff;">#0000ff</h2>

<h2 style="background-color:#3cb371;">#3cb371</h2>

<h2 style="background-color:#ee82ee;">#ee82ee</h2>

<h2 style="background-color:#ffa500;">#ffa500</h2>

<h2 style="background-color:#6a5acd;">#6a5acd</h2>

</body>

</html>

# CSS HSL Colors

HSL stands for hue, saturation, and lightness.

## **HSL Value**

In CSS, a color can be specified using hue, saturation, and lightness (HSL) in the form:

**hsl(hue, saturation, lightness)**

Hue is a degree on the color wheel from 0 to 360. 0 is red, 120 is green, and 240 is blue.

Saturation is a percentage value. 0% means a shade of gray, and 100% is the full color.

Lightness is also a percentage. 0% is black, 50% is neither light or dark, 100% is white

Experiment by mixing the HSL values below:

<!DOCTYPE html>

<html>

<body>

<h1>HSL Saturation</h1>

<p>The second parameter of hsl() defines the saturation. Less saturation mean less color. 0% is completely gray:</p>

<h2 style="background-color:hsl(0, 100%, 50%);">hsl(0, 100%, 50%)</h2>

<h2 style="background-color:hsl(0, 80%, 50%);">hsl(0, 80%, 50%)</h2>

<h2 style="background-color:hsl(0, 60%, 50%);">hsl(0, 60%, 50%)</h2>

<h2 style="background-color:hsl(0, 40%, 50%);">hsl(0, 40%, 50%)</h2>

<h2 style="background-color:hsl(0, 20%, 50%);">hsl(0, 20%, 50%)</h2>

<h2 style="background-color:hsl(0, 0%, 50%);">hsl(0, 0%, 50%)</h2>

</body>

</html>

# CSS Backgrounds

<!DOCTYPE html>

<html>

<head>

<style>

h1 {

background-color: green;

}

div {

background-color: lightblue;

}

p {

background-color: yellow;

}

</style>

</head>

<body>

<h1>CSS background-color example!</h1>

<div>

This is a text inside a div element.

<p>This paragraph has its own background color.</p>

We are still in the div element.

</div>

</body>

</html>

# CSS Borders

<!DOCTYPE html>

<html>

<head>

<style>

p.dotted {border-style: dotted;}

p.dashed {border-style: dashed;}

p.solid {border-style: solid;}

p.double {border-style: double;}

p.groove {border-style: groove;}

p.ridge {border-style: ridge;}

p.inset {border-style: inset;}

p.outset {border-style: outset;}

p.none {border-style: none;}

p.hidden {border-style: hidden;}

p.mix {border-style: dotted dashed solid double;}

</style>

</head>

<body>

<h2>The border-style Property</h2>

<p>This property specifies what kind of border to display:</p>

<p class="dotted">A dotted border.</p>

<p class="dashed">A dashed border.</p>

<p class="solid">A solid border.</p>

<p class="double">A double border.</p>

<p class="groove">A groove border.</p>

<p class="ridge">A ridge border.</p>

<p class="inset">An inset border.</p>

<p class="outset">An outset border.</p>

<p class="none">No border.</p>

<p class="hidden">A hidden border.</p>

<p class="mix">A mixed border.</p>

</body>

</html>

# CSS Margins

## **CSS Margins**

The CSS margin properties are used to create space around elements, outside of any defined borders.

With CSS, you have full control over the margins. There are properties for setting the margin for each side of an element (top, right, bottom, and left).

## **Margin - Individual Sides**

CSS has properties for specifying the margin for each side of an element:

* margin-top
* margin-right
* margin-bottom
* margin-left

All the margin properties can have the following values:

* auto - the browser calculates the margin
* length - specifies a margin in px, pt, cm, etc.
* % - specifies a margin in % of the width of the containing element
* inherit - specifies that the margin should be inherited from the parent element

**Tip:** Negative values are allowed.

<!DOCTYPE html>

<html>

<head>

<style>

div {

border: 1px solid black;

margin-top: 100px;

margin-bottom: 100px;

margin-right: 150px;

margin-left: 80px;

background-color: lightblue;

}

</style>

</head>

<body>

<h2>Using individual margin properties</h2>

<div>This div element has a top margin of 100px, a right margin of 150px, a bottom margin of 100px, and a left margin of 80px.</div>

</body>

</html>