

# Converting Colors

XYZ(49.9112, 38.4825, 5.1899)

Have a look what the booklet for  
XYZ(49.9112, 38.4825, 5.1899)  
contains.

<b>XYZ(49.9766, 38.6170, 5.2005)</b> .....	3
<b><i>Conversions</i></b> .....	4
<b><i>Details</i></b> .....	6
<b><i>Harmonies</i></b> .....	12
<b><i>Previews</i></b> .....	24
<b><i>Color Blindness Simulation</i></b> .....	28
<b><i>CSS Examples</i></b> .....	31

# Color

**XYZ(49.9766, 38.6170,  
5.2005)**

# Conversions

## Conversions Part 1

Format	Color
Hex	FF870D
RGB	255, 135, 13
RGB Percent	100%, 53%, 5%
CMY	0.0000, 0.4706, 0.9490
CMYK	0.00, 0.47, 0.95, 0.00
HSL	30°, 100%, 53%
HSV	30°, 95%, 100%
XYZ	49.9766, 38.6170, 5.2005
YIQ	156.9720, 110.6820, -12.5020

# Conversions

## Conversions Part 2

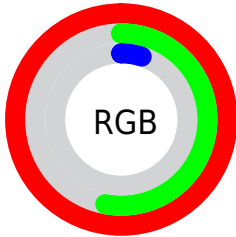
Format	Color
R <sub>Y</sub> B	251, 255, 13
Decimal	16746253
CIE Lab	68.47, 39.46, 73.08
CIE LCh	68, 83.050, 61.634
Yxy	38.6170, 0.5328, 0.4117
Android (android.graphics.Color)	4294936333 (0xFFFF870D)
YUV	156.9720, -70.9782, 85.9706
Hunter-Lab	62.1426, 34.8046, 38.5380

# Details

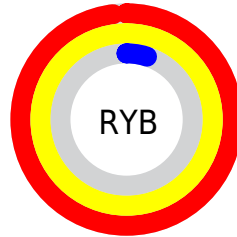
The XYZ color **49.9766, 38.6170, 5.2005** is a dark color, and the websafe version is hex **FF9900**. The color can be described as dark saturated orange. A complement of this color would be **26.6033, 24.0803, 97.8528**, and the grayscale version is **32.3113, 33.9940, 37.0194**.

A 20% lighter version of the original color is **60.8489, 58.2197, 15.4276**, and **24.5791, 17.2629, 2.0366** is the 20% darker color. If you saturate the color by 10%, you get **49.0318, 36.8442, 4.5274**, and if you desaturate by 10%, it is **52.1332, 42.4739, 7.3275**.

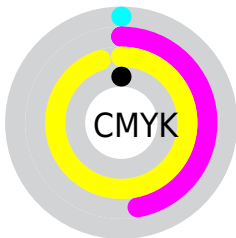
# Distribution



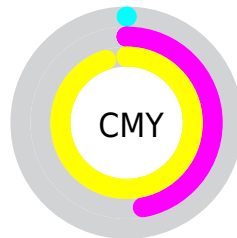
- Red (100%)
- Green (53%)
- Blue (5%)



- Red (98%)
- Yellow (100%)
- Blue (5%)



- Cyan (0%)
- Magenta (47%)
- Yellow (95%)
- Black (0%)




- Cyan (0%)
- Magenta (47%)
- Yellow (95%)


# Brightness & Saturation Gradients

These gradients show how the XYZ color 49.9766, 38.6170, 5.2005 changes by changing the brightness by 10 percent. The first figure shows a shift by +10% for each color and the second figure -10%.


Similar to the brightness gradients but the following saturation gradients show a change of the XYZ color 49.9766, 38.6170, 5.2005 by changing the saturation by 10% instead.





 49.9766, 38.6170,  
5.2005


 49.9766, 38.6170,  
5.2005


377.0279,  
340.2594, 160.7575


 35.6125, 26.4619,  
2.3046


 89.3322, 73.0529,  
16.6955

 24.3038, 17.1695,  
0.7338


 115.0545, 96.1024,  
26.1316

 15.6851, 10.3554,  
0.0000


 145.2936,  
123.5522, 38.5849

 9.3910, 5.6352,  
0.0000

 180.4147,  
155.7868, 54.4738

 5.0562, 2.6246,  
0.0000

 220.7834,  
193.1903, 74.2170

 2.3154, 0.9390,  
0.0000

 266.7649,

 0.8025, 0.0000,

236.1474, 98.2330

0.0000

318.7247,  
285.0422, 126.9403

0.0000, 0.0000,  
0.0000

49.9766, 38.6170,  
5.2005

49.9766, 38.6170,  
5.2005

49.0318, 36.8442,  
4.5274

52.1332, 42.4739,  
7.3275

54.7875, 46.8745,  
11.0117

57.9964, 51.8539,  
16.5154

61.8061, 57.4408,  
24.0516

66.2572, 63.6610,  
33.8033

71.3859, 70.5385,  
45.9328

77.2255, 78.0957,  
60.5872

83.8068, 86.3535,  
77.9014

91.1584, 95.3320,  
98.0006

# Harmonies

## Analogous

The Analogous color harmony consists of three colors that are next to each other on the color wheel.



62.5099, 38.6170, 14.4790



49.9766, 38.6170, 5.2005



35.9927, 38.6170, 3.3431

# Triad

The Triadic color harmony groups three colors that are evenly spaced from another and form a triangle on the color wheel.



49.9766, 38.6170, 5.2005



16.8877, 38.6170, 44.1322



51.5162, 38.6170, 137.8345

# Complementary

The Complementary color scheme is a pair of colors which are on the opposite of each other on the color wheel.



49.9766, 38.6170, 5.2005



26.6033, 24.0803, 97.8528

# Split Complementary

Split-complementary colors differ from the complementary color scheme. The scheme consists of three colors, the original color and two neighbors of the complement color.



37.4252, 38.6170, 162.7180



49.9766, 38.6170, 5.2005



19.2043, 38.6170, 92.1825

# Square

The Square scheme is like the rectangle color scheme, but the four colors are evenly spaced on the color wheel.



49.9766, 38.6170, 5.2005



18.7429, 38.6170, 16.2957



26.0182, 38.6170, 142.4109



63.5369, 38.6170, 86.3154



# Rectangle

The Rectangle color scheme consists of four colors that form a rectangle on the color wheel.



49.9766, 38.6170, 5.2005



28.2014, 38.6170, 4.3638



26.0182, 38.6170, 142.4109



46.7645, 38.6170, 150.6137

# Sweetspot

The Sweet Spot groups the original color and five complimentary colors.



49.9774, 38.6191, 5.2012



75.3372, 75.6787, 55.7646



45.6870, 23.2692, 24.6390



15.5877, 15.5021, 10.5890



0.0000, 0.0000, 0.0000



20.3446, 21.4041, 23.3091



# Same Dimension

The Same Dimension uses a secret algorithm to generate beautiful new colors.



49.9774, 38.6191, 5.2012



49.0322, 36.8445, 4.5274



77.0720, 92.8083, 14.2327



18.7662, 19.5006, 18.9192



25.7700, 19.5512, 2.4155



2.6184, 2.1222, 0.2716



# Inverse Universe

The Inverse Universe completely reimagines the original color for something new.



26.6033, 24.0803, 97.8528



25.5674, 22.2549, 97.5558



18.3600, 7.5936, 95.1050



17.7470, 18.8656, 22.9560



13.5085, 11.9266, 51.0247



1.4244, 1.3795, 5.0045



# Previews

## White Background



This preview shows how the XYZ color 49.9766, 38.6170, 5.2005 looks on a white background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA × Fail

Any Text WCAG AA × Fail

Large Text (above 18pt) WCAG AAA × Fail

Any Text WCAG AAA × Fail



# Black Background



This preview shows how the XYZ color 49.9766, 38.6170, 5.2005 looks on a black background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

Any Text WCAG AA ✓ Pass

Large Text (above 18pt) WCAG AAA ✓ Pass

Any Text WCAG AAA ✓ Pass

If you want to check with other color combinations, try the [Color Contrast Checker](#).

**XYZ 49.9766, 38.6170, 5.2005**

## **Background**



This preview shows how black text looks on a background with the XYZ color 49.9766, 38.6170, 5.2005.



This preview shows how white text looks on a background with the XYZ color 49.9766, 38.6170,



# Color Blindness Simulation

Color vision deficiency is a very complex topic, and I could not describe the different causes any better than Wikipedia does, so if you want to learn more, you should check out their [article about color blindness](#).

## Dichromacy



### Original Color

49.9766, 38.6170, 5.2005

### Protanopia

35.1644, 38.8943, 6.5737

### Deuteranopia

39.5495, 38.7933, 5.4034



## Tritanopia

53.6056, 38.7667, 28.3243

# Trichromacy



## Original Color

49.9766, 38.6170, 5.2005

## Protanomaly

39.4644, 37.9772, 5.9598

## Deuteranomaly

42.9286, 38.3176, 5.2770

## Tritanomaly

51.2881, 38.2653, 14.8080

# Monochromacy



## Original Color

49.9766, 38.6170, 5.2005

## Achromatopsia

32.0474, 33.7164, 36.7171

## Achromatomaly

35.2896, 33.8523, 18.0388

# CSS Examples

## Text

The CSS property to change the color of the text to XYZ 49.9766, 38.6170, 5.2005 is called "color". The color property can be set on classes, ids or directly on the HTML element.

This example shows how text in the color `rgb(255, 135, 13)` looks like.

```
.text, #text, p{  
    color:rgb(255, 135, 13)  
}
```

If you want to add a text shadow in that color use the text-shadow property, you can generate a text shadow directly with our [CSS Text Shadow Generator](#).

Here you see how black text with a 4 pixel rgb(255, 135, 13) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(255, 135, 13) }
```

## Border

The CSS property to change the border of an element to XYZ 49.9766, 38.6170, 5.2005 is called "border". The border property can be set on classes, ids or directly on the HTML element.

This example shows the color as border, it can be applied via the CSS property "border" or "border-color".

```
.border, #border, table{ border:4px solid rgb(255, 135, 13) }
```



If only the border color should be changed use the property border-color.

```
.border{ border-color:rgb(255, 135, 13) }
```

If you want to add a box shadow in that color use:

Here you see how a box with a 4 pixel rgb(255, 135, 13) colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(255, 135, 13); -webkit-box-  
shadow:4px 4px 4px 4px rgb(255, 135, 13);  
box-shadow:4px 4px 4px 4px rgb(255, 135,  
13) }
```

# Background

The CSS property to change the background color of an element to XYZ 49.9766, 38.6170, 5.2005 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(255, 135, 13) }
```

If only the background color should be changed can be used:

```
.background{ background-color: rgb(255,  
135, 13) }
```

This example shows the color as background, it is applied via the CSS property "background".

To optimize and compress your CSS code, you can use our [online CSS compressor and optimizer](#) based on csstidy. If you want to create a linear or radial gradient as background or border, check our [CSS Gradient Generator](#).

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