

# Converting Colors

XYZ(31.1385, 16.4301, 2.2300)

Have a look what the booklet for  
XYZ(31.1385, 16.4301, 2.2300)  
contains.

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# Color

**XYZ(31.1440, 16.4378,  
2.2408)**

# Conversions

## Conversions Part 1

Format	Color
Hex	E01515
RGB	224, 21, 21
RGB Percent	88%, 8%, 8%
CMY	0.1216, 0.9175, 0.9176
CMYK	0.00, 0.91, 0.91, 0.12
HSL	0°, 83%, 48%
HSV	0°, 91%, 88%
XYZ	31.1440, 16.4378, 2.2408
YIQ	81.6970, 120.9880, 43.0360

# Conversions

## Conversions Part 2

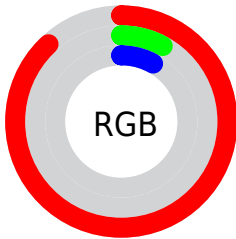
<b>Format</b>	<b>Color</b>
<b>R<sub>YB</sub></b>	224, 21, 21
Decimal	14685461
CIE Lab	47.54, 70.81, 54.75
CIE LCh	48, 89.508, 37.711
Yxy	16.4378, 0.6251, 0.3299
Android (android.graphics.Color)	4292875541 (0xFFE01515)
YUV	81.6970, -29.9236, 124.7997
Hunter-Lab	40.5436, 66.1656, 25.1036

# Details

The XYZ color **31.1440, 16.4378, 2.2408** is a dark color, and the websafe version is hex **CC0000**. The color can be described as dark washed red. A complement of this color would be **40.4105, 58.8347, 79.7468**, and the grayscale version is **8.0038, 8.4206, 9.1700**.

A 20% lighter version of the original color is **46.4064, 29.8741, 8.9506**, and **14.2981, 7.3709, 0.6691** is the 20% darker color. If you saturate the color by 10%, you get **30.7406, 15.8479, 1.4387**, and if you desaturate by 10%, it is **32.0632, 17.7837, 4.0669**.

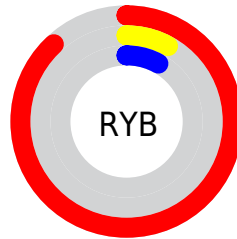
# Distribution



Red (88%)

Green (8%)

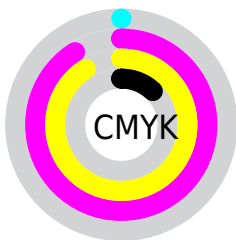
Blue (8%)



Red (88%)

Yellow (8%)

Blue (8%)

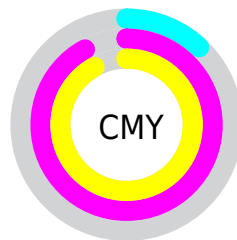


Cyan (0%)

Magenta (91%)

Yellow (91%)

Black (12%)



Cyan (12%)

Magenta (92%)


Yellow (92%)


# Brightness & Saturation Gradients

These gradients show how the XYZ color 31.1440, 16.4378, 2.2408 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 31.1440, 16.4378, 2.2408 by changing the saturation by 10% instead.





 31.1440, 16.4378,  
2.2408

 31.1440, 16.4378,  
2.2408

299.0162,  
231.9114, 126.0105


 20.8609, 9.8345,  
0.6978


 60.8410, 37.3566,  
9.6893


 13.1342, 5.2893,  
0.0000


 80.9856, 52.4409,  
16.4556

 7.5987, 2.4180,  
0.0000


 105.1481, 71.1209,  
25.8080

 3.8889, 0.8351,  
0.0000

 133.6939, 93.7811,  
38.1650

 1.6395, 0.0000,  
0.0000

 166.9882,  
120.8058, 53.9453

 0.4179, 0.0000,  
0.0000


 205.3964,


 0.0000, 0.0000,


152.5795, 73.5672


0.0000


 249.2840,  
189.4866, 97.4495


 31.1440, 16.4378,  
2.2408


 31.1440, 16.4378,  
2.2408


 30.7406, 15.8479,  
1.4387

 32.0632, 17.7837,  
4.0669

 33.6557, 20.1142,  
7.2320

 36.0180, 23.5710,  
11.9274

 39.2304, 28.2718,  
18.3131

 43.3634, 34.3197,  
26.5292

■ 48.4801, 41.8069,  
36.7012

■ 54.6381, 50.8177,  
48.9433

■ 61.8904, 61.4296,  
63.3613

■ 70.2865, 73.7152,  
80.0535

# Harmonies

## Analogous

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



36.2485, 16.4378, 12.6337



31.1440, 16.4378, 2.2408



22.1830, 16.4378, 0.0000

# Triad

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



31.1440, 16.4378, 2.2408



5.3045, 16.4378, 5.8830



17.7702, 16.4378, 106.0608

# Complementary

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



31.1440, 16.4378, 2.2408



40.4105, 58.8347, 79.7468

# 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.



10.5044, 16.4378, 96.9033



31.1440, 16.4378, 2.2408



4.8298, 16.4378, 24.4526

# Square

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



31.1440, 16.4378, 2.2408



8.0025, 16.4378, 0.7803



6.3688, 16.4378, 60.3737



26.9905, 16.4378, 79.8644



# Rectangle

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



31.1440, 16.4378, 2.2408



16.2435, 16.4378, 0.0000



6.3688, 16.4378, 60.3737



15.0198, 16.4378, 107.2495

# Sweetspot

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



31.1443, 16.4388, 2.2410



67.7117, 59.9972, 54.5499



44.4628, 21.7653, 72.3781



13.9196, 12.0027, 10.5358



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.



31.1443, 16.4388, 2.2410



41.2404, 21.2609, 1.9301



37.8967, 29.9435, 4.4918



13.7075, 13.7009, 14.2289



17.8935, 9.2249, 0.8375



1.2403, 0.6395, 0.0581



# Inverse Universe

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



40.4105, 58.8347, 79.7468



53.7971, 78.7141, 106.9657



20.7848, 19.5834, 73.2049



14.1164, 15.5720, 17.6494



23.3416, 34.1527, 46.4103



1.6180, 2.3674, 3.2169



# Previews

## White Background



This preview shows how the XYZ color 31.1440, 16.4378, 2.2408 looks on a white 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 × Fail



# Black Background



## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

Any Text WCAG AA × Fail

Large Text (above 18pt) WCAG AAA × Fail

Any Text WCAG AAA × Fail

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

**XYZ 31.1440, 16.4378, 2.2408**

## **Background**



This preview shows how black text looks on a background with the XYZ color 31.1440, 16.4378, 2.2408.



This preview shows how white text looks on a background with the XYZ color 31.1440, 16.4378,



# 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

31.1440, 16.4378, 2.2408

### Protanopia

15.1527, 16.6999, 4.4322

### Deuteranopia

16.8642, 16.6544, 2.3258



## Tritanopia

31.0937, 16.4477, 1.8837

# Trichromacy



## Original Color

31.1440, 16.4378, 2.2408

## Protanomaly

18.0435, 13.5285, 3.0991

## Deuteranomaly

19.8619, 14.0707, 1.8988

## Tritanomaly

31.1136, 16.4556, 1.9883

# Monochromacy



## Original Color

31.1440, 16.4378, 2.2408

## Achromatopsia

8.0200, 8.4376, 9.1886

## Achromatomaly

12.2630, 8.6263, 5.2937

# CSS Examples

## Text

The CSS property to change the color of the text to XYZ 31.1440, 16.4378, 2.2408 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(224, 21, 21)` looks like.

```
.text, #text, p{  
    color:rgb(224, 21, 21)  
}
```

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(224, 21, 21) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(224, 21, 21) }
```

## Border

The CSS property to change the border of an element to XYZ 31.1440, 16.4378, 2.2408 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(224, 21, 21) }
```



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

```
.border{ border-color:rgb(224, 21, 21) }
```

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

Here you see how a box with a 4 pixel rgb(224, 21, 21) colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(224, 21, 21); -webkit-box-  
shadow:4px 4px 4px 4px rgb(224, 21, 21);  
box-shadow:4px 4px 4px 4px rgb(224, 21,  
21) }
```

# Background

The CSS property to change the background color of an element to XYZ 31.1440, 16.4378, 2.2408 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(224, 21, 21) }
```

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

```
.background{ background-color: rgb(224, 21,  
21) }
```

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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