

# Converting Colors

XYZ(23.7623, 12.2227, 2.3419)

Have a look what the booklet for  
XYZ(23.7623, 12.2227, 2.3419)  
contains.

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# Color

**XYZ(23.7875, 12.2359,  
2.3363)**

# Conversions

## Conversions Part 1

<b>Format</b>	<b>Color</b>
Hex	C7001E
RGB	199, 0, 30
RGB Percent	78%, 0%, 12%
CMY	0.2196, 0.9998, 0.8824
CMYK	0.00, 1.00, 0.85, 0.22
HSL	351°, 100%, 39%
HSV	351°, 100%, 78%
XYZ	23.7875, 12.2359, 2.3363
YIQ	62.9210, 108.9740, 51.5180

# Conversions

## Conversions Part 2

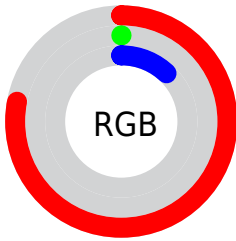
<b>Format</b>	<b>Color</b>
<b>RYB</b>	199, 0, 30
Decimal	13041694
CIELab	41.59, 66.87, 43.71
CIElCh	42, 79.889, 33.175
Yxy	12.2359, 0.6201, 0.3190
Android (android.graphics.Color)	4291231774 (0xFFC7001E)
YUV	62.9210, -16.2301, 119.3413
Hunter-Lab	34.9799, 60.1714, 20.5259

# Details

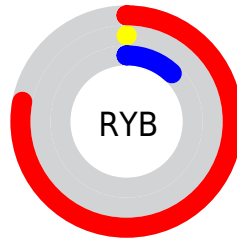
The XYZ color **23.7875, 12.2359, 2.3363** is a dark color, and the websafe version is hex **CC0033**. The color can be described as dark washed red. A complement of this color would be **27.5893, 43.7129, 44.5408**, and the grayscale version is **4.7284, 4.9747, 5.4174**.

A 20% lighter version of the original color is **45.7148, 28.1225, 9.8562**, and **9.9917, 5.1509, 0.4676** is the 20% darker color. If you saturate the color by 10%, you get **23.7868, 12.2355, 2.3338**, and if you desaturate by 10%, it is **24.3133, 12.8448, 3.8770**.

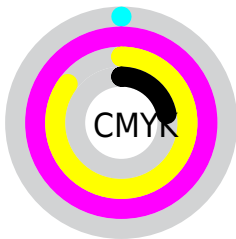
# Distribution



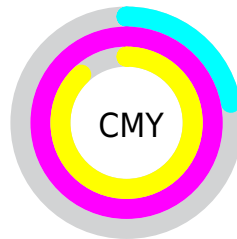
- Red (78%)
- Green (0%)
- Blue (12%)



- Red (78%)
- Yellow (0%)
- Blue (12%)



- Cyan (0%)
- Magenta (100%)
- Yellow (85%)
- Black (22%)




- Cyan (22%)
- Magenta (100%)
- Yellow (88%)


# Brightness & Saturation Gradients

These gradients show how the XYZ color 23.7875, 12.2359, 2.3363 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 23.7875, 12.2359, 2.3363 by changing the saturation by 10% instead.





 23.7875, 12.2359,  
2.3363


 23.7875, 12.2359,  
2.3363


264.2048,  
205.9608, 127.3979


 15.2999, 6.9045,  
0.7514


 49.1404, 29.9240,  
9.9414


 9.1178, 3.4025,  
0.0000


 66.7365, 43.0496,  
16.8139

 4.8759, 1.3453,  
0.0000

 88.0994, 59.5420,  
26.2912

 2.2086, 0.1759,  
0.0000

 113.5946, 79.7857,  
38.7918


 0.7473, 0.0000,  
0.0000


 143.5874,  
104.1650, 54.7343


 0.0000, 0.0000,  
0.0000


 178.4431,


133.0644, 74.5370


 218.5272,  
166.8682, 98.6187


 23.7875, 12.2359,  
2.3363


 23.7875, 12.2359,  
2.3363


 23.7868, 12.2355,  
2.3338

 24.3133, 12.8448,  
3.8770

 25.2264, 14.0171,  
6.1978

 26.6298, 15.9367,  
9.4004

 28.5821, 18.7019,  
13.5635

 31.1334, 22.3958,  
18.7567

■ 34.3281, 27.0917,  
25.0430

■ 38.2065, 32.8554,  
32.4804

■ 42.8055, 39.7471,  
41.1228

■ 48.1591, 47.8227,  
51.0206

# Harmonies

## Analogous

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



26.8301, 12.2359, 11.6199



23.7875, 12.2359, 2.3363



17.4686, 12.2359, 0.0289

# Triad

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



23.7875, 12.2359, 2.3363



4.2118, 12.2359, 3.4422



12.2629, 12.2359, 78.1345

# Complementary

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



23.7875, 12.2359, 2.3363



27.5893, 43.7129, 44.5408

# 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.



7.2630, 12.2359, 67.5575



23.7875, 12.2359, 2.3363



3.6352, 12.2359, 15.1844

# Square

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



23.7875, 12.2359, 2.3363



6.5041, 12.2359, 0.3382



4.5358, 12.2359, 39.8042



18.9198, 12.2359, 62.4357



# Rectangle

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



23.7875, 12.2359, 2.3363



13.0160, 12.2359, 0.0000



4.5358, 12.2359, 39.8042



10.3458, 12.2359, 77.5554

# Sweetspot

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



23.7878, 12.2367, 2.3365



66.5563, 57.0186, 56.2234



26.0015, 12.2141, 55.0194



13.5970, 11.2380, 10.7964



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.



23.7878, 12.2367, 2.3365



41.5962, 21.4025, 3.8060



25.5226, 16.0810, 1.7600



10.6979, 10.6625, 11.3923



15.3161, 7.8760, 1.6087



0.7466, 0.3815, 0.1886



# Inverse Universe

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



23.7878, 12.2367, 2.3365



41.5962, 21.4025, 3.8060



18.6531, 20.8116, 57.0662



10.6979, 10.6625, 11.3923



15.3161, 7.8760, 1.6087



0.7466, 0.3815, 0.1886



# Previews

## White Background



This preview shows how the XYZ color 23.7875, 12.2359, 2.3363 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 23.7875, 12.2359, 2.3363**

## **Background**



This preview shows how black text looks on a background with the XYZ color 23.7875, 12.2359, 2.3363.



This preview shows how white text looks on a background with the XYZ color 23.7875, 12.2359,



# 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

23.7875, 12.2359, 2.3363

### Protanopia

11.7636, 12.9086, 4.7773

### Deuteranopia

12.8446, 12.6964, 1.7737



## Tritanopia

23.5050, 12.4384, 1.1620

# Trichromacy



## Original Color

23.7875, 12.2359, 2.3363

## Protanomaly

13.5790, 9.6736, 3.3420

## Deuteranomaly

14.8131, 10.0282, 1.4715

## Tritanomaly

23.4688, 12.2693, 1.4479

# Monochromacy



## Original Color

23.7875, 12.2359, 2.3363

## Achromatopsia

4.7246, 4.9707, 5.4130

## Achromatomaly

8.0384, 5.2013, 3.7123

# CSS Examples

## Text

The CSS property to change the color of the text to XYZ 23.7875, 12.2359, 2.3363 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(199, 0, 30)` looks like.

```
.text, #text, p{  
    color:rgb(199, 0, 30)  
}
```

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(199, 0, 30) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(199, 0, 30) }
```

## Border

The CSS property to change the border of an element to XYZ 23.7875, 12.2359, 2.3363 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(199, 0, 30) }
```



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

```
.border{ border-color:rgb(199, 0, 30) }
```

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

Here you see how a box with a 4 pixel rgb(199, 0, 30) colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(199, 0, 30); -webkit-box-  
shadow:4px 4px 4px 4px rgb(199, 0, 30);  
box-shadow:4px 4px 4px 4px rgb(199, 0, 30)  
}
```

# Background

The CSS property to change the background color of an element to XYZ 23.7875, 12.2359, 2.3363 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(199, 0, 30) }
```

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

```
.background{ background-color: rgb(199, 0,  
30) }
```

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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