

# Converting Colors

XYZ(20.4456, 21.5123, 23.4209)

Have a look what the booklet for  
XYZ(20.4456, 21.5123, 23.4209)  
contains.

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# Color

**XYZ(20.5175, 21.5861,  
23.5072)**

# Conversions

## Conversions Part 1

<b>Format</b>	<b>Color</b>
Hex	808080
RGB	128, 128, 128
RGB Percent	50%, 50%, 50%
CMY	0.4980, 0.4980, 0.4980
CMYK	0.00, 0.00, 0.00, 0.50
HSL	130°, 0%, 50%
HSV	130°, 0%, 50%
XYZ	20.5175, 21.5861, 23.5072
YIQ	128.0000, -0.0000, -0.0000

# Conversions

## Conversions Part 2

<b>Format</b>	<b>Color</b>
<b>RYB</b>	128, 128, 128
Decimal	8421504
CIELab	53.59, 0.00, -0.01
CIELCh	54, 0.007, 293.956
Yxy	21.5861, 0.3127, 0.3290
Android (android.graphics.Color)	4286611584 (0xFF808080)
YUV	128.0000, 0.0000, 0.0000
Hunter-Lab	46.4608, -2.4794, 2.5244

# Details

The XYZ color **20.5175, 21.5861, 23.5072** is a dark color, and the websafe version is hex **999999**, and the color name is **gray**. A complement of this color would be **20.5183, 21.5865, 23.5083**, and the grayscale version is **20.5183, 21.5869, 23.5081**.

A 20% lighter version of the original color is **43.9204, 46.2077, 50.3202**, and **7.4317, 7.8187, 8.5146** is the 20% darker color. If you saturate the color by 10%, you get **18.0507, 20.3915, 19.9379**, and if you desaturate by 10%, it is **23.3014, 22.9370, 27.4729**.

# Distribution



- Red (50%)
- Green (50%)
- Blue (50%)



- Red (50%)
- Yellow (50%)
- Blue (50%)



- Cyan (0%)
- Magenta (0%)
- Yellow (0%)
- Black (50%)



- Cyan (50%)
- Magenta (50%)
- Yellow (50%)

# Brightness & Saturation Gradients

These gradients show how the XYZ color 20.5175, 21.5861, 23.5072 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 20.5175, 21.5861, 23.5072 by changing the saturation by 10% instead.



■ 20.5175, 21.5861,  
23.5072

■ 20.5175, 21.5861,  
23.5072

247.4836,  
260.3771, 283.5254

■ 12.8822, 13.5531,  
14.7597

■ 43.7805, 46.0610,  
50.1585

■ 7.4239, 7.8105,  
8.5061

■ 60.1389, 63.2716,  
68.8994

■ 3.7773, 3.9739,  
4.3281

■ 80.1357, 84.3102,  
91.8084

■ 1.5769, 1.6590,  
1.8070

104.1363,  
109.5612, 119.3042

■ 0.3773, 0.3969,  
0.4326

132.5060,  
139.4090, 151.8052

■ 0.0000, 0.0000,  
0.0000

165.6103,

174.2380, 189.7301

203.8143,  
214.4326, 233.4973

■ 20.5175, 21.5861,  
23.5072

■ 20.5175, 21.5861,  
23.5072

■ 18.0507, 20.3915,  
19.9379

■ 23.3014, 22.9370,  
27.4729

■ 15.8878, 19.3448,  
16.7513

■ 26.4112, 24.4466,  
31.8450

■ 14.0177, 18.4411,  
13.9352

■ 29.8577, 26.1209,  
36.6354

■ 12.4276, 17.6741,  
11.4760

■ 33.6506, 27.9646,  
41.8546

■ 11.1038, 17.0372,  
9.3595

■ 37.7993, 29.9824,  
47.5130

■ 10.0317, 16.5229,  
7.5705

■ 42.3126, 32.1786,  
53.6205

■ 9.1948, 16.1234,  
6.0926

■ 47.1994, 34.5575,  
60.1869

■ 8.5751, 15.8295,  
4.9079

■ 52.4678, 37.1233,  
67.2215

■ 8.1515, 15.6309,  
3.9968

■ 58.1262, 39.8798,  
74.7333

# Harmonies

## Analogous

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



20.5168, 21.5861, 23.5075



20.5175, 21.5861, 23.5072



20.5181, 21.5861, 23.5059

# Triad

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



20.5175, 21.5861, 23.5072



20.5178, 21.5861, 23.5004



20.5156, 21.5861, 23.5032

# Complementary

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



20.5175, 21.5861, 23.5072



20.5183, 21.5865, 23.5083

# 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.



20.5158, 21.5861, 23.5013



20.5175, 21.5861, 23.5072



20.5171, 21.5861, 23.4997

# Square

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



20.5175, 21.5861, 23.5072



20.5182, 21.5861, 23.5020



20.5164, 21.5861, 23.5000



20.5157, 21.5861, 23.5052



# Rectangle

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



20.5175, 21.5861, 23.5072



20.5183, 21.5861, 23.5047



20.5164, 21.5861, 23.5000



20.5156, 21.5861, 23.5025

# Sweetspot

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



20.5181, 21.5870, 23.5077



36.1244, 38.0056, 41.3881



20.5185, 21.5872, 23.5075



8.4577, 8.8982, 9.6901



62.3462, 65.5931, 71.4309

# Same Dimension

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



20.5181, 21.5870, 23.5077



36.1244, 38.0056, 41.3881



20.5182, 21.5871, 23.5082



4.8358, 5.0876, 5.5404



7.7981, 15.3658, 3.3095



0.0000, 0.0000, 0.0000



# Inverse Universe

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



20.5183, 21.5865, 23.5083



36.1244, 38.0056, 41.3881



20.5182, 21.5864, 23.5077



4.8358, 5.0876, 5.5404



11.4072, 5.5826, 14.0001



0.0000, 0.0000, 0.0000



# Previews

## White Background



This preview shows how the XYZ color 20.5175, 21.5861, 23.5072 looks on a white 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

# Black Background



This preview shows how the XYZ color 20.5175, 21.5861, 23.5072 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

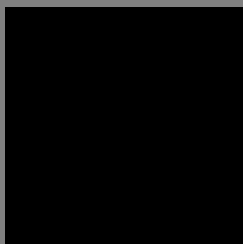
Any Text WCAG AAA × Fail

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

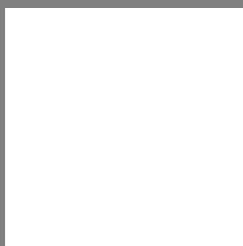


**XYZ 20.5175, 21.5861, 23.5072**

## **Background**



This preview shows how black text looks on a background with the XYZ color 20.5175, 21.5861, 23.5072.



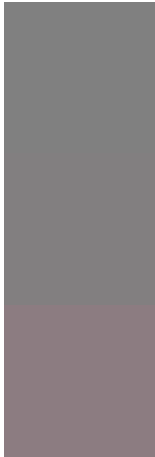
This preview shows how white text looks on a background with the XYZ color 20.5175, 21.5861,



# 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

20.5175, 21.5861, 23.5072

### Protanopia

20.6916, 21.4831, 23.4782

### Deuteranopia

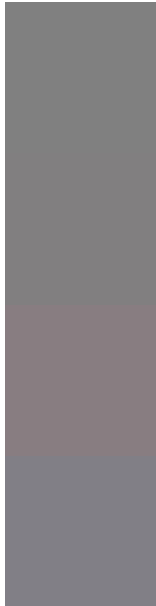
21.9853, 21.5757, 23.7747



## Tritanopia

21.1580, 21.6520, 26.7310

# Trichromacy



## Original Color

20.5175, 21.5861, 23.5072

## Protanomaly

20.5389, 21.4044, 23.4710

## Deuteranomaly

21.4494, 21.4865, 23.7857

## Tritanomaly

20.9457, 21.5671, 25.6132

# Monochromacy



## Original Color

20.5175, 21.5861, 23.5072

## Achromatopsia

20.5175, 21.5861, 23.5072

## Achromatomaly

20.5175, 21.5861, 23.5072

# CSS Examples

## Text

The CSS property to change the color of the text to XYZ 20.5175, 21.5861, 23.5072 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(128, 128, 128)` looks like.

```
.text, #text, p{  
    color:rgb(128, 128, 128)  
}
```

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(128, 128, 128) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(128, 128, 128) }
```

## Border

The CSS property to change the border of an element to XYZ 20.5175, 21.5861, 23.5072 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(128, 128, 128) }
```

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

```
.border{ border-color:rgb(128, 128, 128) }
```

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

Here you see how a box with a 4 pixel `rgb(128, 128, 128)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(128, 128, 128); -webkit-box-  
shadow:4px 4px 4px 4px rgb(128, 128, 128);  
box-shadow:4px 4px 4px 4px rgb(128, 128,  
128) }
```



# Background

The CSS property to change the background color of an element to XYZ 20.5175, 21.5861, 23.5072 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(128, 128, 128) }
```

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

```
.background{ background-color: rgb(128,  
128, 128) }
```

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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