

# Converting Colors

XYZ(12.9016, 19.4890, 20.1776)

Have a look what the booklet for  
XYZ(12.9016, 19.4890, 20.1776)  
contains.

<b>XYZ(12.9432, 19.5744, 20.2356)</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(12.9432, 19.5744,  
20.2356)**

# Conversions

## Conversions Part 1

Format	Color
Hex	248976
RGB	36, 137, 118
RGB Percent	14%, 54%, 46%
CMY	0.8588, 0.4627, 0.5373
CMYK	0.74, 0.00, 0.14, 0.46
HSL	169°, 58%, 34%
HSV	169°, 74%, 54%
XYZ	12.9432, 19.5744, 20.2356
YIQ	104.6350, -54.0970, -27.3210

# Conversions

## Conversions Part 2

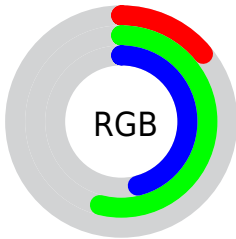
<b>Format</b>	<b>Color</b>
<b>R<sub>YB</sub></b>	36, 92, 137
Decimal	2394486
CIE <sub>Lab</sub>	51.35, -33.07, 1.99
CIE <sub>LCh</sub>	51, 33.133, 176.555
Yxy	19.5744, 0.2454, 0.3711
Android (android.graphics.Color)	4280584566 (0xFF248976)
YUV	104.6350, 6.5889, -60.1929
Hunter-Lab	44.2430, -25.2053, 3.8523

# Details

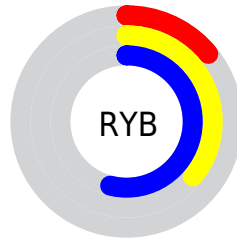
The XYZ color **12.9432, 19.5744, 20.2356** is a dark color, and the websafe version is hex **009999**. A complement of this color would be **11.6376, 6.8564, 4.3251**, and the grayscale version is **13.3224, 14.0162, 15.2637**.

A 20% lighter version of the original color is **30.8163, 42.7053, 44.6490**, and **4.4333, 7.0978, 6.9307** is the 20% darker color. If you saturate the color by 10%, you get **12.4026, 19.3136, 19.4220**, and if you desaturate by 10%, it is **13.6722, 19.9328, 21.0808**.

# Distribution



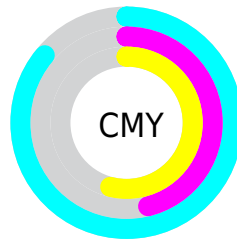
- Red (14%)
- Green (54%)
- Blue (46%)



- Red (14%)
- Yellow (36%)
- Blue (54%)



- Cyan (74%)
- Magenta (0%)
- Yellow (14%)
- Black (46%)




- Cyan (86%)
- Magenta (46%)
- Yellow (54%)


# Brightness & Saturation Gradients

These gradients show how the XYZ color 12.9432, 19.5744, 20.2356 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 12.9432, 19.5744, 20.2356 by changing the saturation by 10% instead.





 12.9432, 19.5744,  
20.2356


 12.9432, 19.5744,  
20.2356


204.1983,  
249.6017, 265.8340


 7.4662, 12.0861,  
12.3806


 30.8039, 42.7025,  
44.6760


 3.8042, 6.8023,  
6.8778


 43.9183, 59.1110,  
62.0985


 1.5920, 3.3388,  
3.3085

 60.3091, 79.2617,  
83.5473

 0.3872, 1.3111,  
1.2542

 80.3418, 103.5390,  
109.4408

 0.0000, 0.1497,  
0.0238

 104.3818,  
132.3272, 140.1978

 0.0000, 0.0000,  
0.0000

 132.7942,

166.0108, 176.2366

165.9446,  
204.9742, 217.9758

■ 12.9432, 19.5744,  
20.2356

■ 12.9432, 19.5744,  
20.2356

■ 12.4026, 19.3136,  
19.4220

■ 13.6722, 19.9328,  
21.0808

■ 12.0257, 19.1363,  
18.6373

■ 14.6067, 20.3961,  
21.9571

■ 11.8278, 19.0447,  
18.1573

■ 15.7637, 20.9736,  
22.8661

■ 17.1579, 21.6729,  
23.8085

■ 18.8029, 22.5010,  
24.7852

■ 20.7110, 23.4643,  
25.7969

■ 22.8939, 24.5687,  
26.8443

■ 25.3626, 25.8199,  
27.9281

■ 28.1273, 27.2232,  
29.0489

# Harmonies

## Analogous

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



13.7797, 19.5744, 12.7568



12.9432, 19.5744, 20.2356



13.4687, 19.5744, 30.5535

# Triad

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



12.9432, 19.5744, 20.2356



21.6004, 19.5744, 42.1513



22.3411, 19.5744, 9.4272

# Complementary

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



12.9432, 19.5744, 20.2356



11.6376, 6.8564, 4.3251

# 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.



24.9045, 19.5744, 14.1535



12.9432, 19.5744, 20.2356



24.4424, 19.5744, 33.0318

# Square

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



12.9432, 19.5744, 20.2356



18.2247, 19.5744, 45.2025



25.7153, 19.5744, 22.4284



18.9903, 19.5744, 7.7968



# Rectangle

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



12.9432, 19.5744, 20.2356



14.5592, 19.5744, 37.4918



25.7153, 19.5744, 22.4284



23.3381, 19.5744, 10.6222

# Sweetspot

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



12.9438, 19.5752, 20.2361



34.0673, 40.4935, 44.6046



10.9068, 18.8660, 4.7360



7.4781, 9.0003, 9.9134



65.7814, 69.2071, 75.3665



9.5508, 10.0482, 10.9424



# Same Dimension

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



12.9438, 19.5752, 20.2361



21.7590, 34.3725, 33.8997



10.4700, 12.6348, 25.5547



5.1332, 5.6728, 6.2223



11.0212, 17.7411, 16.9344



0.0780, 0.1198, 0.1379



# Inverse Universe

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



11.6376, 6.8564, 4.3251



19.3479, 10.3149, 4.1000



12.6014, 9.3779, 2.8153



5.0688, 5.0630, 5.4510



9.7847, 5.0240, 1.3707

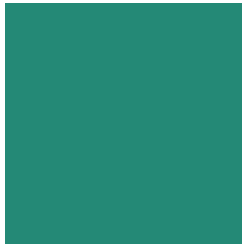


0.0691, 0.0350, 0.0307



# Previews

## White Background



This preview shows how the XYZ color 12.9432, 19.5744, 20.2356 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 12.9432, 19.5744, 20.2356 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 12.9432, 19.5744, 20.2356**

## **Background**



This preview shows how black text looks on a background with the XYZ color 12.9432, 19.5744, 20.2356.



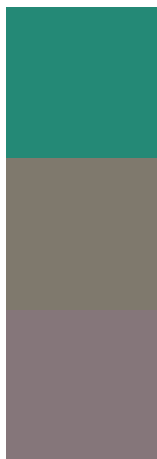
This preview shows how white text looks on a background with the XYZ color 12.9432, 19.5744,



# 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

12.9432, 19.5744, 20.2356

### Protanopia

18.3501, 19.2909, 17.2244

### Deuteranopia

19.6642, 19.3486, 21.1106



## Tritanopia

14.7370, 19.4668, 29.3663

# Trichromacy



**Original Color**

12.9432, 19.5744, 20.2356

**Protanomaly**

15.1301, 18.7283, 18.1467

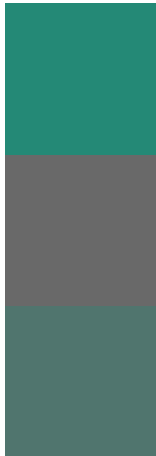
**Deuteranomaly**

15.8218, 18.6444, 20.8540

**Tritanomaly**

13.9805, 19.3574, 25.9212

# Monochromacy



**Original Color**

12.9432, 19.5744, 20.2356

**Achromatopsia**

13.4271, 14.1263, 15.3836

**Achromatomaly**

12.4840, 15.5538, 17.0961

# CSS Examples

## Text

The CSS property to change the color of the text to XYZ 12.9432, 19.5744, 20.2356 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(36, 137, 118)` looks like.

```
.text, #text, p{  
    color:rgb(36, 137, 118)  
}
```

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(36, 137, 118) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(36, 137, 118) }
```

## Border

The CSS property to change the border of an element to XYZ 12.9432, 19.5744, 20.2356 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(36, 137, 118) }
```



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

```
.border{ border-color:rgb(36, 137, 118) }
```

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

Here you see how a box with a 4 pixel `rgb(36, 137, 118)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(36, 137, 118); -webkit-box-  
shadow:4px 4px 4px 4px rgb(36, 137, 118);  
box-shadow:4px 4px 4px 4px rgb(36, 137,  
118) }
```

# Background

The CSS property to change the background color of an element to XYZ 12.9432, 19.5744, 20.2356 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(36, 137, 118) }
```

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

```
.background{ background-color: rgb(36, 137,  
118) }
```

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](#).

# Hey! You found this booklet interesting? Support Converting Colors with the new Membership Option!

The pro membership hides all ads, plus gives you double the colors in the color bucket, and more awesome pro features!

**[Learn more, Memberships starting at \\$2.50/m!](#)**

**Follow me  
on Twitter!**

@ConvertingColor