

# Converting Colors

`RYB(80, 70, 166)`

Have a look what the booklet for  
RYB(80, 70, 166) contains.

<b>RYB(80, 70, 166)</b> .....	3
<b><i>Conversions</i></b> .....	4
<b><i>Details</i></b> .....	6
<b><i>Harmonies</i></b> .....	11
<b><i>Previews</i></b> .....	23
<b><i>Color Blindness Simulation</i></b> .....	26
<b><i>CSS Examples</i></b> .....	29

# Color

**R<sub>Y</sub>B(80, 70, 166)**

# Conversions

## Conversions Part 1

<b>Format</b>	<b>Color</b>
Hex	5046A6
RGB	80, 70, 166
RGB Percent	31%, 27%, 65%
CMY	0.6863, 0.7255, 0.3490
CMYK	0.52, 0.58, 0.00, 0.35
HSL	246°, 41%, 46%
HSV	246°, 58%, 65%
XYZ	12.3814, 8.8390, 37.1299
YIQ	83.9340, -24.8560, 31.9760

# Conversions

## Conversions Part 2

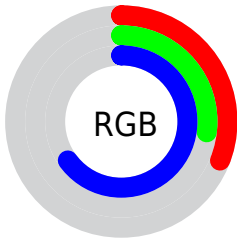
<b>Format</b>	<b>Color</b>
<b>R<sub>YB</sub></b>	80, 70, 166
Decimal	5260966
CIE <sub>Lab</sub>	35.67, 30.74, -50.64
CIE <sub>LCh</sub>	36, 59.236, 301.257
Yxy	8.8390, 0.2122, 0.1515
Android (android.graphics.Color)	4283451046 (0xFF5046A6)
YUV	83.9340, 40.4585, -3.4501
Hunter-Lab	29.7304, 22.3089, -53.2352

# Details

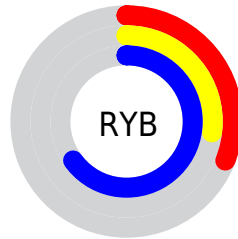
The RYB color **80, 70, 166** is a dark color, and the websafe version is hex **333399**. A complement of this color would be **70, 166, 80**, and the grayscale version is **84, 84, 84**.

A 20% lighter version of the original color is **136, 119, 222**, and **15, 25, 113** is the 20% darker color. If you saturate the color by 10%, you get **65, 53, 166**, and if you desaturate by 10%, it is **95, 87, 166**.

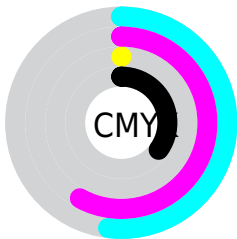
# Distribution



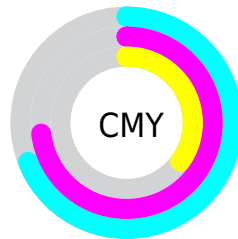
- Red (31%)
- Green (27%)
- Blue (65%)



- Red (31%)
- Yellow (27%)
- Blue (65%)



- Cyan (52%)
- Magenta (58%)
- Yellow (0%)
- Black (35%)



- Cyan (69%)
- Magenta (73%)
- Yellow (35%)

# Brightness & Saturation Gradients

These gradients show how the RYB color 80, 70, 166 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 RYB color 80, 70, 166 by changing the saturation by 10% instead.



■ 80, 70, 166

■ 80, 70, 166

255, 255, 255

■ 51, 47, 139

■ 136, 119, 222

■ 15, 25, 113

■ 164, 145, 251

■ 0, 5, 88

■ 192, 171, 255

■ 0, 0, 64

■ 221, 199, 255

■ 0, 3, 41

■ 251, 227, 255

■ 0, 1, 19

■ 0, 0, 0

■ 80, 70, 166

■ 80, 70, 166

■ 65, 53, 166

■ 95, 87, 166

■ 50, 37, 166

■ 110, 103, 166

■ 35, 20, 166

■ 125, 120, 166

■ 21, 4, 166

■ 139, 136, 166

■ 17, 0, 166

■ 154, 153, 166

■ 166, 170, 167

■ 166, 186, 168

■ 166, 203, 170

■ 166, 219, 171

# Harmonies

## Analogous

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



0, 60, 180



80, 70, 166



141, 41, 130

# Triad

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



80, 70, 166



137, 117, 0



0, 57, 104

# Complementary

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



80, 70, 166



70, 166, 80

# 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.



0, 76, 101



80, 70, 166



22, 101, 0

# Square

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



80, 70, 166



161, 35, 38



0, 95, 43



0, 58, 132

# Rectangle

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



80, 70, 166



159, 20, 100



0, 95, 43



0, 62, 103



# Sweetspot

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



80, 70, 166



184, 180, 217



70, 115, 166



90, 88, 110



237, 237, 237



110, 110, 110



# Same Dimension

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



80, 70, 166



83, 67, 217



128, 70, 166



77, 76, 84



15, 0, 148



2, 0, 20



# Inverse Universe

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



166, 70, 156



217, 67, 201



70, 166, 128



84, 76, 83



148, 0, 132



20, 0, 18



# Previews

## White Background



This preview shows how the RYB color 80, 70, 166 looks on a white background.

## Color Contrast Check

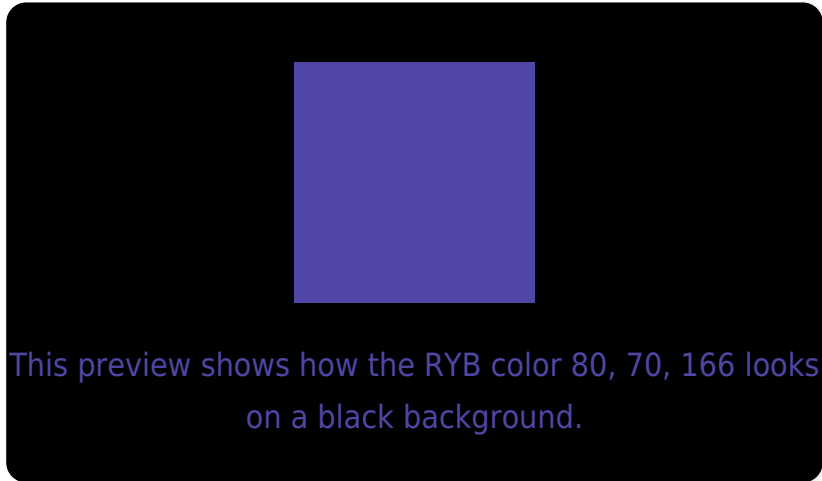
Large Text (above 18pt) WCAG AA ✓ Pass

Any Text WCAG AA ✓ Pass

Large Text (above 18pt) WCAG AAA ✓ Pass

Any Text WCAG AAA ✓ Pass

# Black 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

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



## RYP 80, 70, 166 Background



This preview shows how black text looks on a background with the RYP color 80, 70, 166.

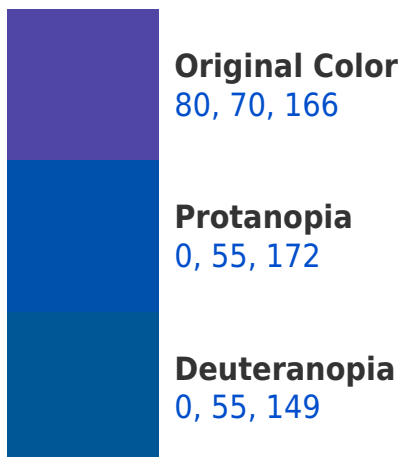



This preview shows how white text looks on a background with the RYP color 80, 70, 166.

# 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





# Tritanopia

58, 75, 96

# Trichromacy



**Original Color**  
80, 70, 166

**Protanomaly**  
29, 65, 170

**Deuteranomaly**  
29, 65, 155

**Tritanomaly**  
66, 78, 121

# Monochromacy



**Original Color**  
80, 70, 166

**Achromatopsia**  
84, 84, 84

**Achromatomaly**  
83, 79, 114

# CSS Examples

## Text

The CSS property to change the color of the text to RYB 80, 70, 166 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(80, 70, 166)` looks like.

```
.text, #text, p{  
    color:rgb(80, 70, 166)  
}
```

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(80, 70, 166) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(80, 70, 166) }
```

## Border

The CSS property to change the border of an element to RYB 80, 70, 166 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(80, 70, 166) }
```

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

```
.border{ border-color:rgb(80, 70, 166) }
```

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

Here you see how a box with a 4 pixel `rgb(80, 70, 166)` colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(80, 70, 166); -webkit-box-  
shadow:4px 4px 4px 4px rgb(80, 70, 166);  
box-shadow:4px 4px 4px 4px rgb(80, 70,  
166) }
```

# Background

The CSS property to change the background color of an element to RGB 80, 70, 166 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(80, 70, 166) }
```

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

```
.background{ background-color: rgb(80, 70,  
166) }
```

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