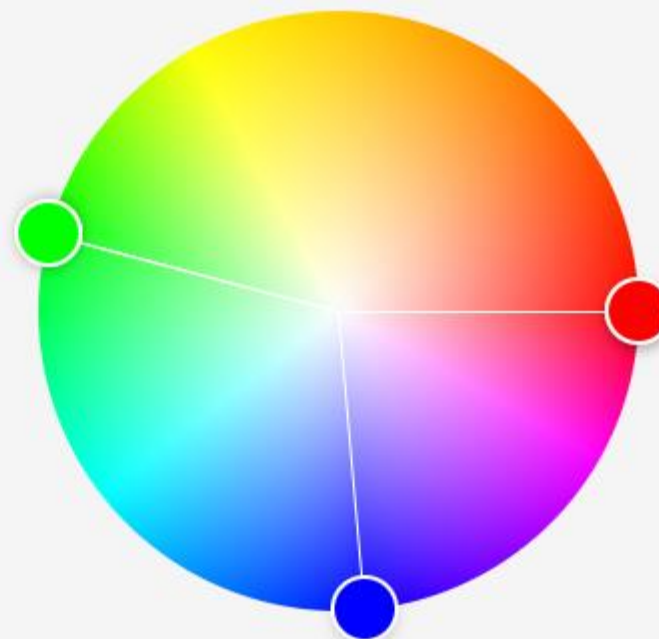


Hue values (0-255)

```
import numpy as np  
a=[32,64,96,128,160,192,224,255]  
np.random.choice(a=a,size=1)
```

Apply Color Harmony ⓘ
Rule

- ☐ Analogous
- ☐ Monochromatic
- ☐ Triad
- ☐ Complementary
- ☐ Split Complementary
- ☐ Double Split Complementary
- ☐ Square
- ☐ Compound
- ☐ Shades
- ☒ Custom



#FF0000



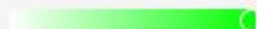


#0000FF

#00FF00

#00FF00

#FF0000

H  0  240  120  120  0

S  100  100  100  100  100

B  100  100  100  100  100

Color Mode

HSB ▼

Hue

256/12 colors = 21.333 ≈ 21

360/12 = 30

RED
#FF0000
(255,0,0)
Hue: 0 (0°)
Sat = 255
Lum = 128

Orange
#FF8000
(255,128,0)
Hue: 21
Sat = 255
Lum = 128

YELLOW
#FFFF00
(255,255,0)
Hue: 42
Sat = 255
Lum = 128

chartreuse
#80FF00
(128,255,0)
Hue: 64
Sat = 255
Lum = 128

GREEN
#00FF00
(0,255,0)
Hue: 85
Sat = 255
Lum = 128

SPRING
GREEN
#00FF80
(0,255,128)
Hue: 106
Sat = 255
Lum = 128

CYAN/Aqua
#00FFFF
(0,255,255)
Hue: 127
(180°)
Sat = 255
Lum = 128

AZURE
#0000FF
(0,128,255)
Hue: 149
Sat = 255
Lum = 128

BLUE
#0000FF
(0,0,255)
Hue: 170
Sat = 255
Lum = 128

Violet
#8000FF
(128,0,255)
Hue: 191
Sat = 255
Lum = 128

MAGENTA/Fuc
shia
#FF00FF
(255,0,255)
Hue: 213
Sat = 255
Lum = 128

Rose
#FF0080
(255,0,128)
Hue: 234
Sat = 255
Lum = 128


<https://colordesigner.io/color-mixer>

https://www.w3schools.com/colors/colors_wheels.asp

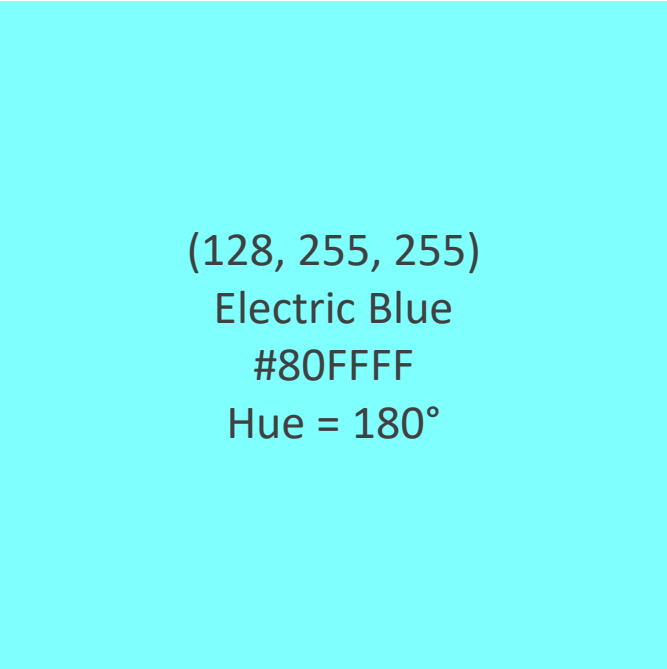
<https://combinecolors.com/rgb-color-blender>

<https://pinetools.com/blend-colors>

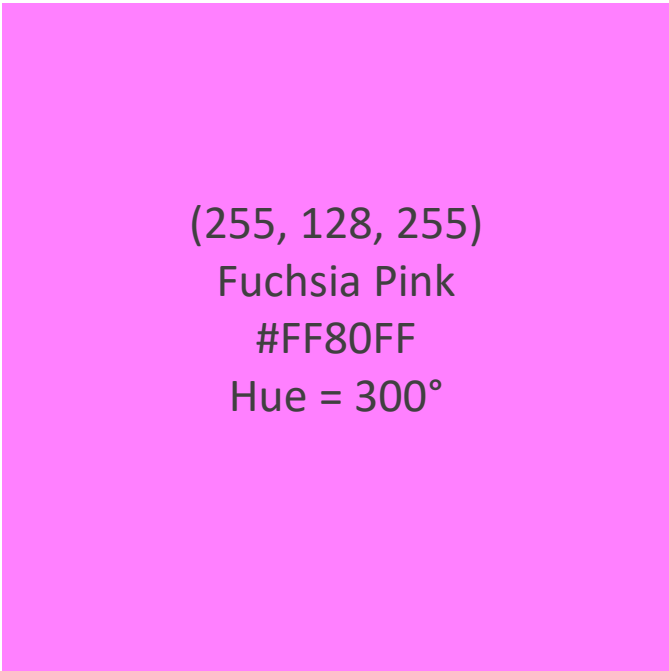
Color names



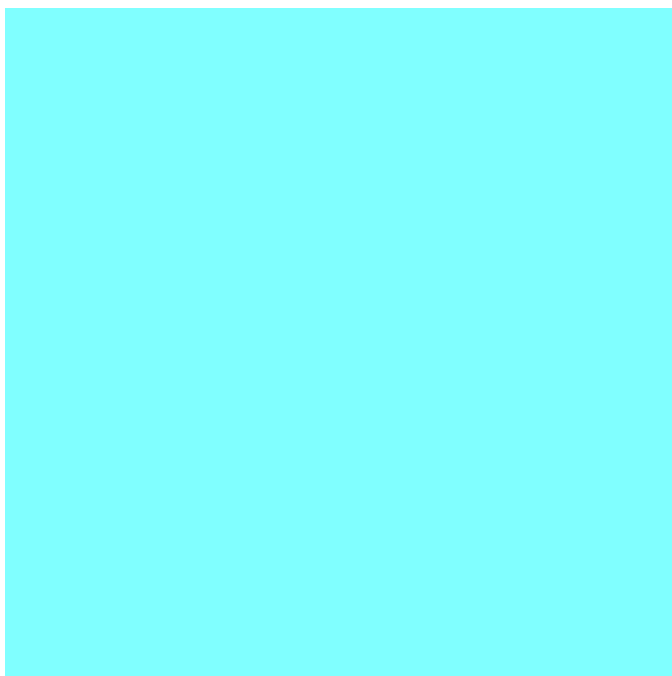
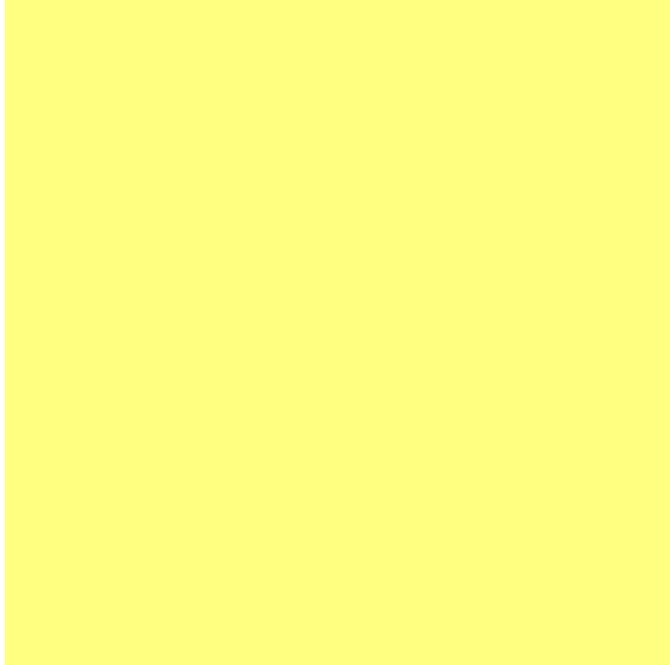
(255, 255, 128)
Canary
#FFFF80
Hue:60°

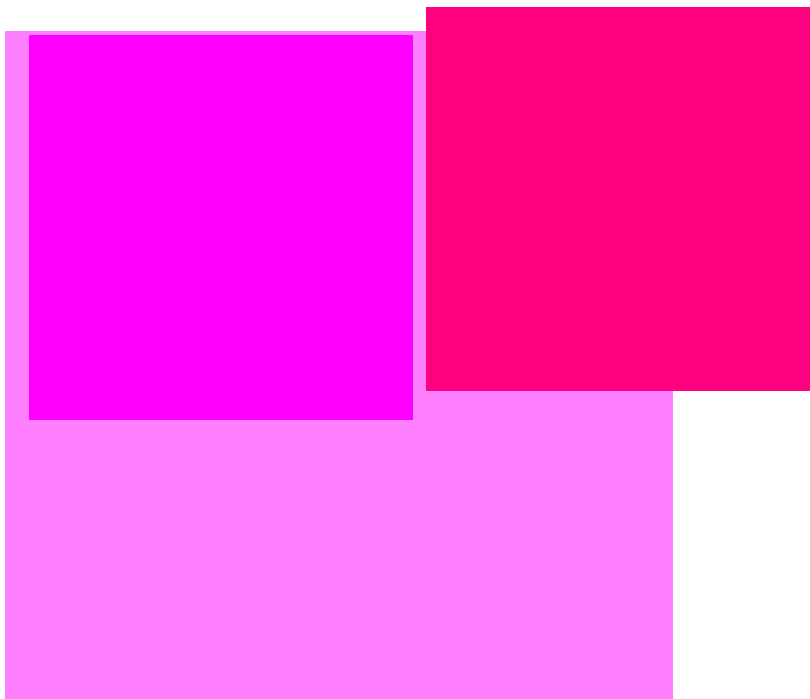
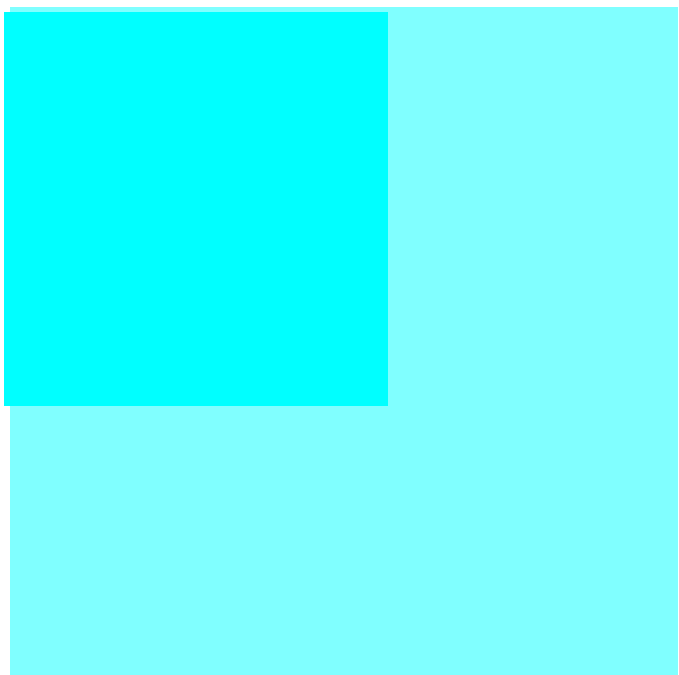
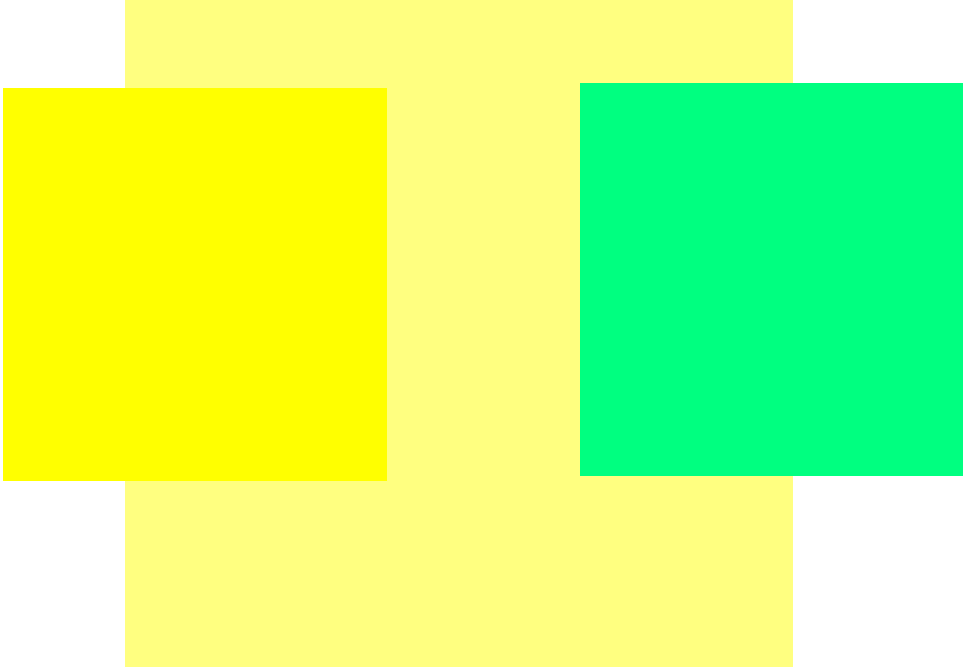


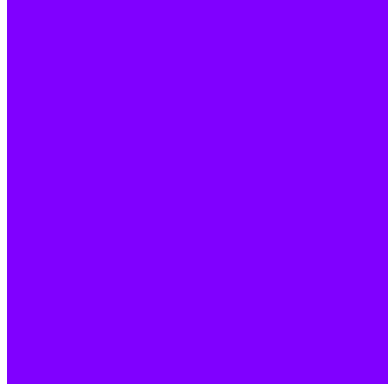
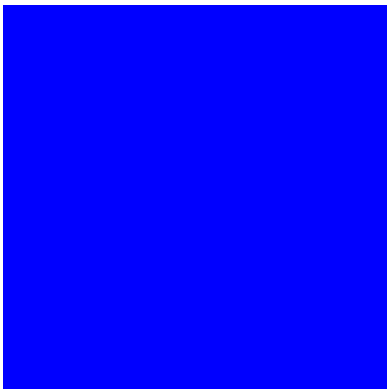
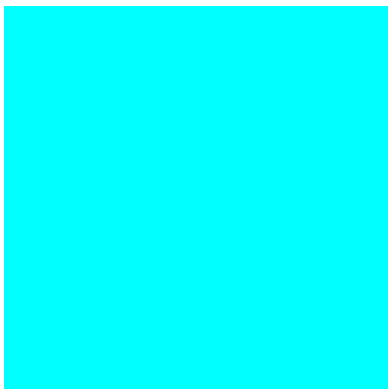
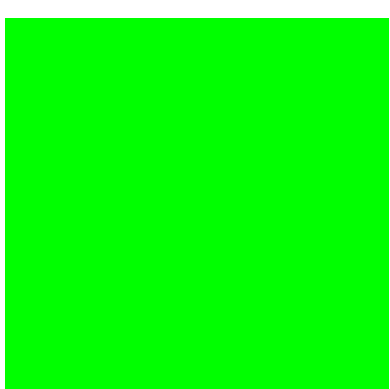
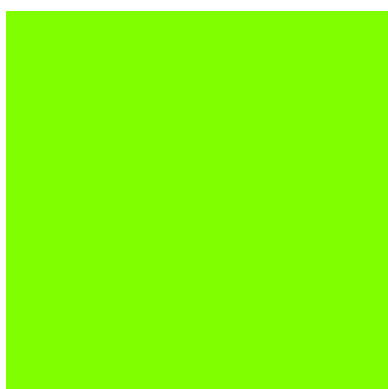
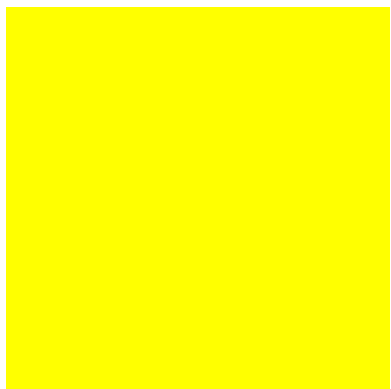
(128, 255, 255)
Electric Blue
#80FFFF
Hue = 180°

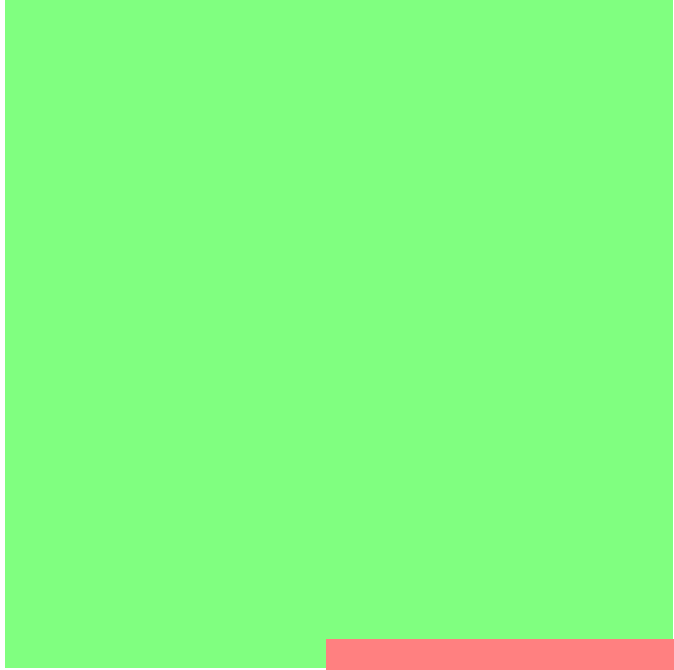
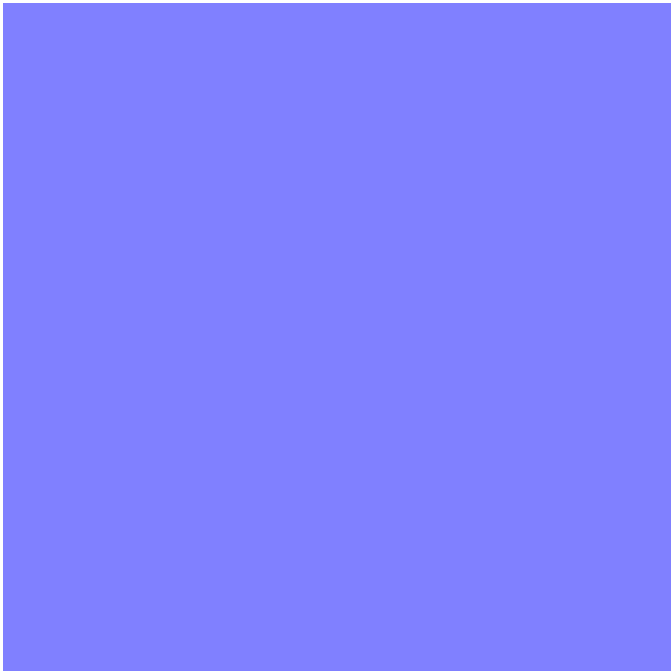


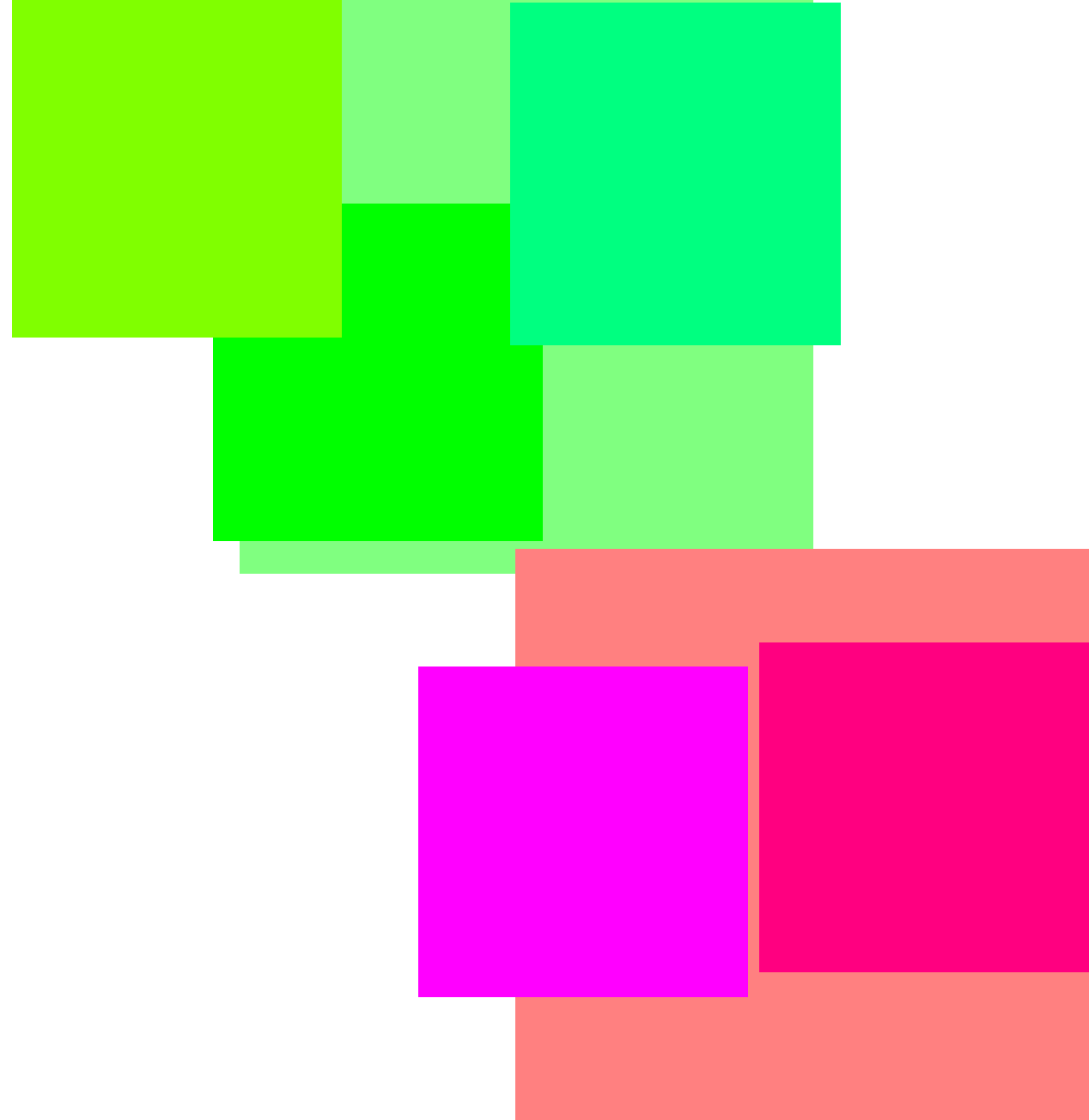
(255, 128, 255)
Fuchsia Pink
#FF80FF
Hue = 300°

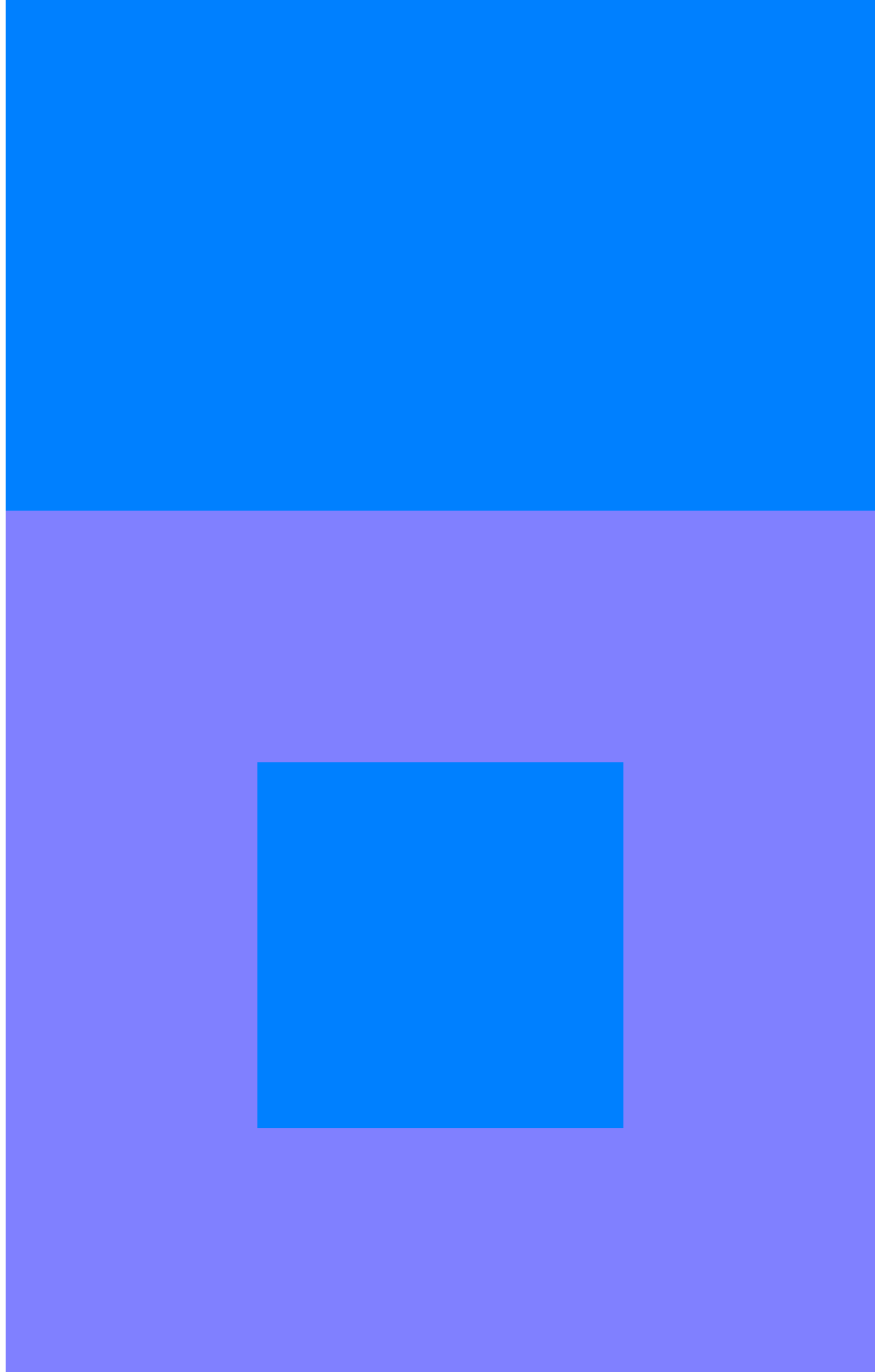
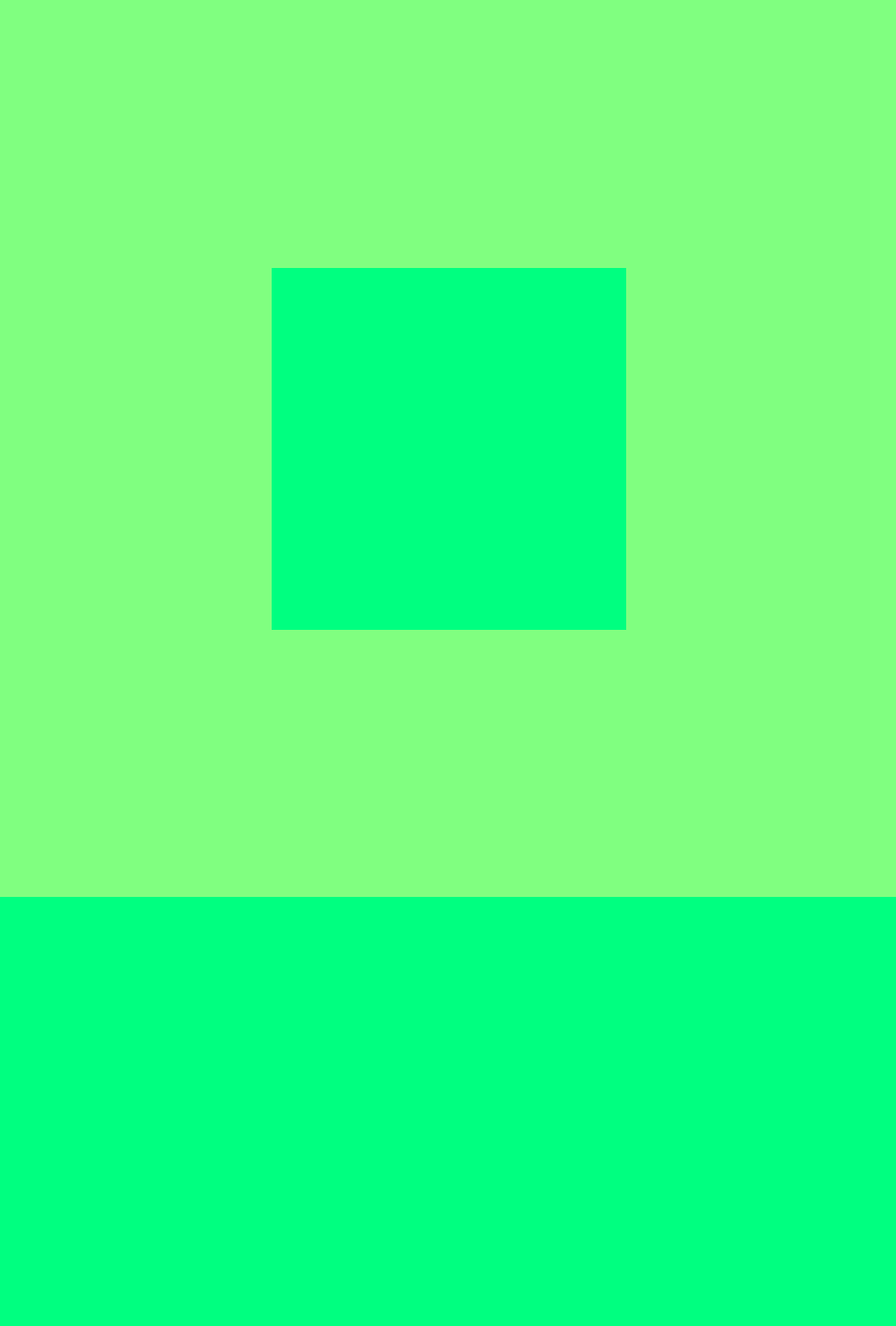


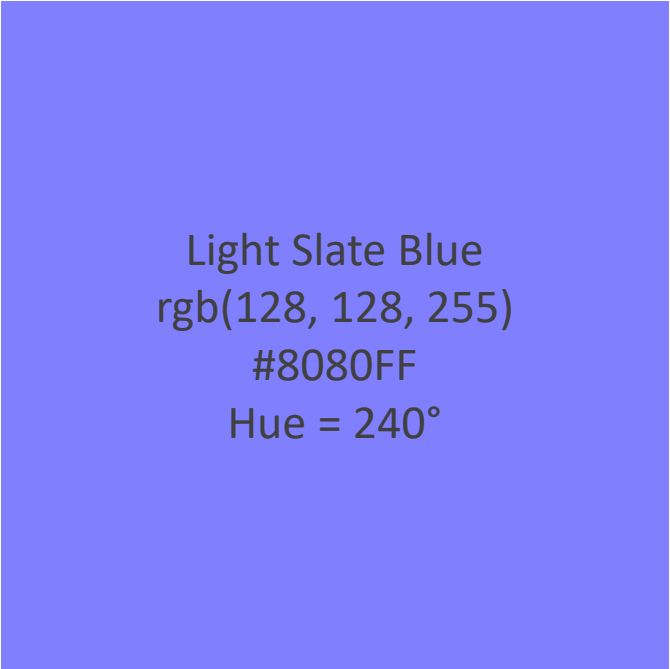














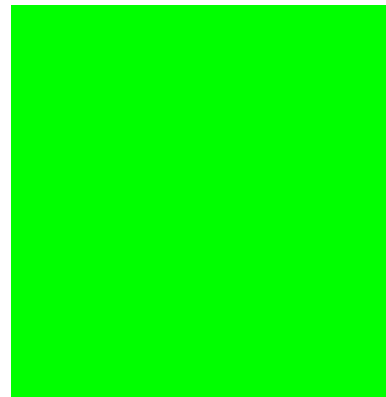
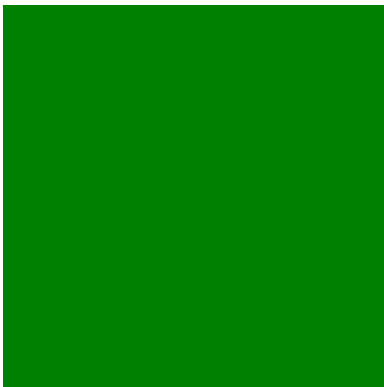
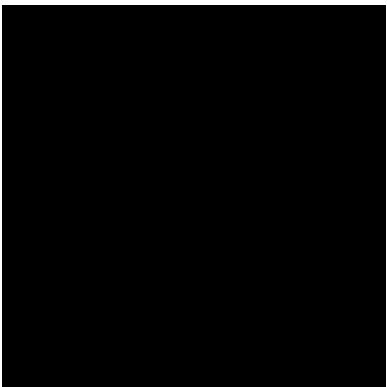
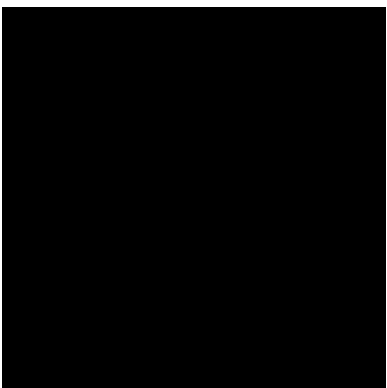
Light Slate Blue
rgb(128, 128, 255)
#8080FF
Hue = 240°

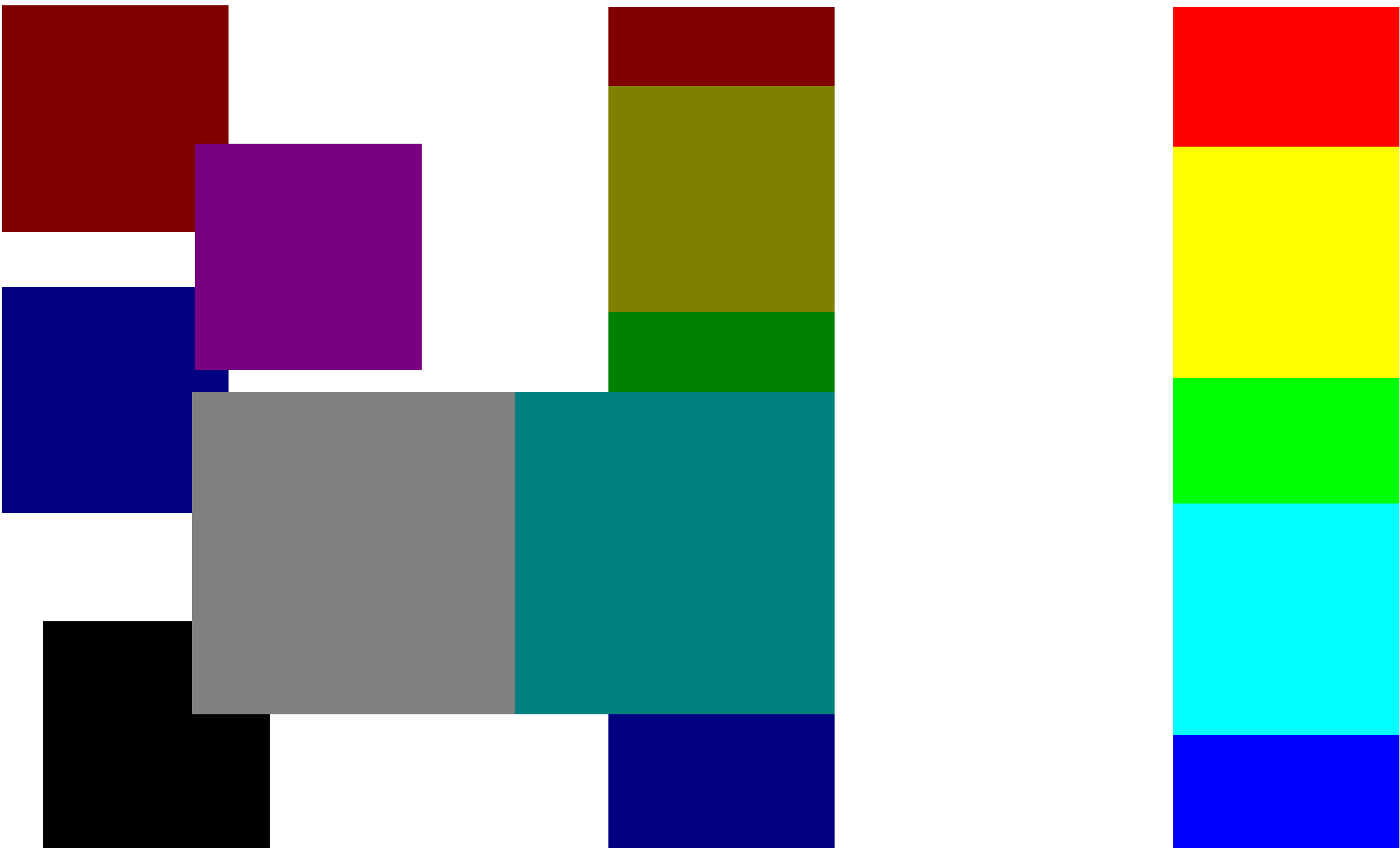


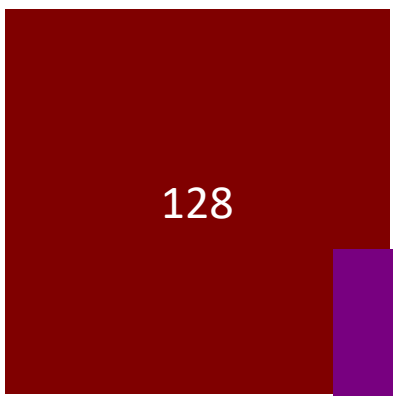
Mint Green
rgb(128, 255, 128)
#80FF80
Hue = 120°



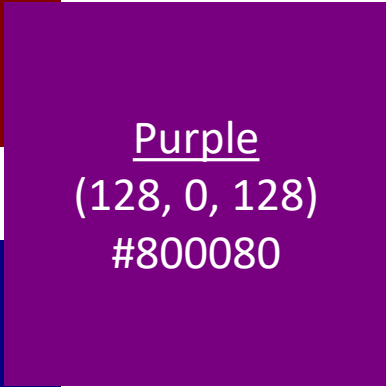
Mona Lisa
rgb(255, 128, 128)
#FF8080
Hue = 0°



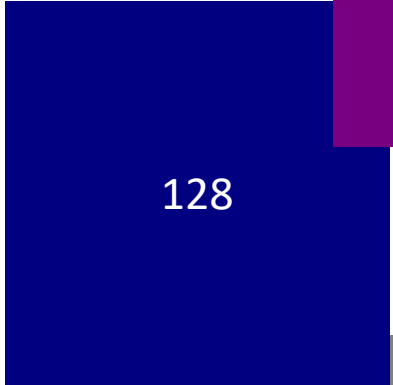




128



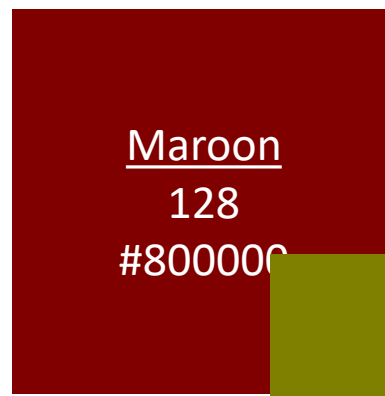
Purple
(128, 0, 128)
#800080



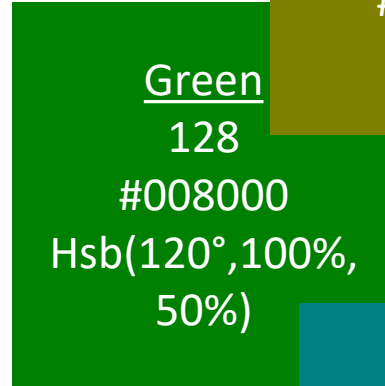
128



Grey (/greɪ /)
(128, 128, 128)
#808080



Maroon
128
#800000



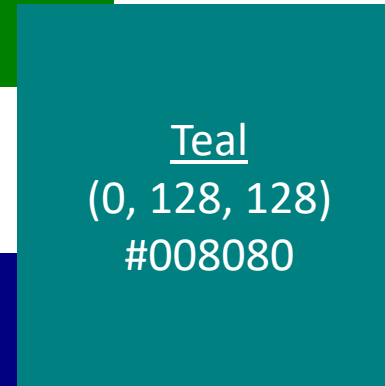
Green
128
#008000
Hsb(120°,100%,
50%)



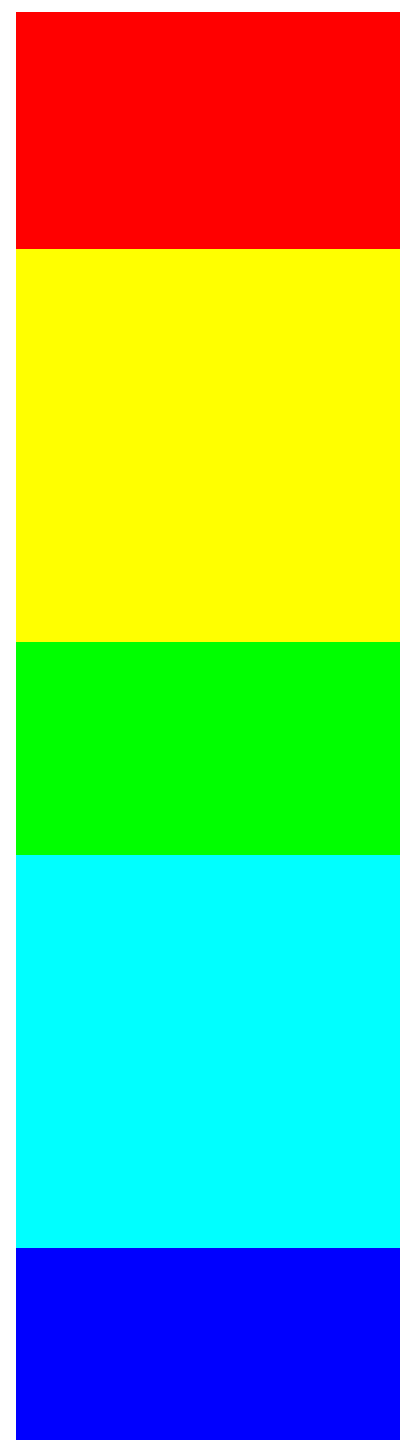
Navy
128
#000080

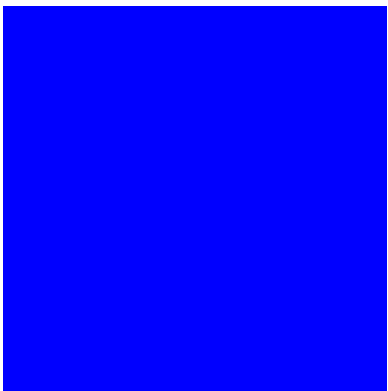
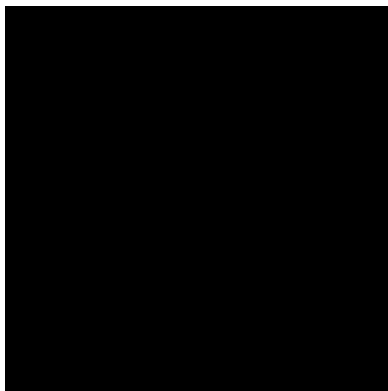
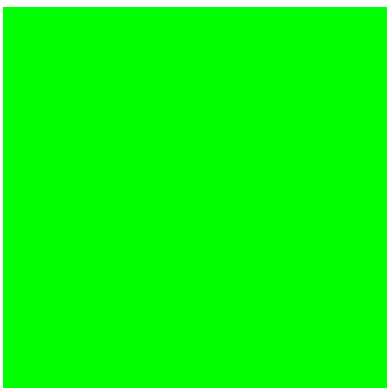
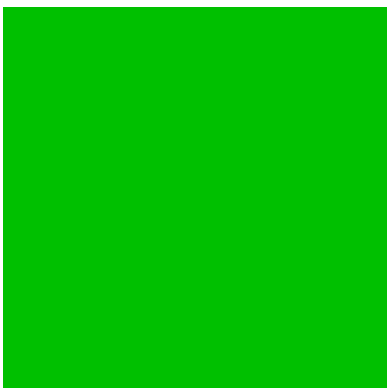
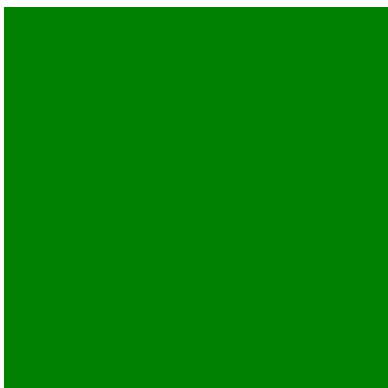
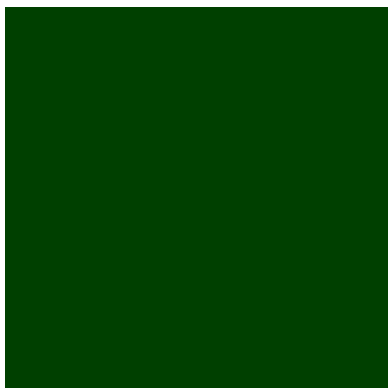
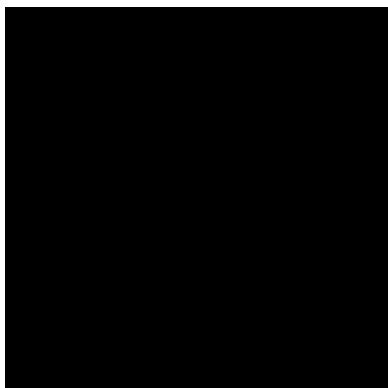
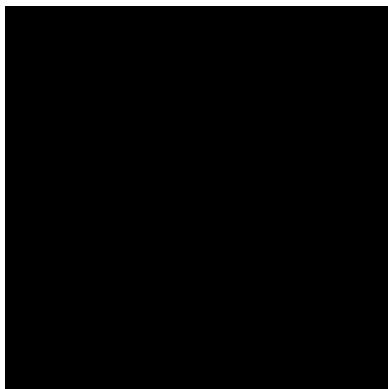


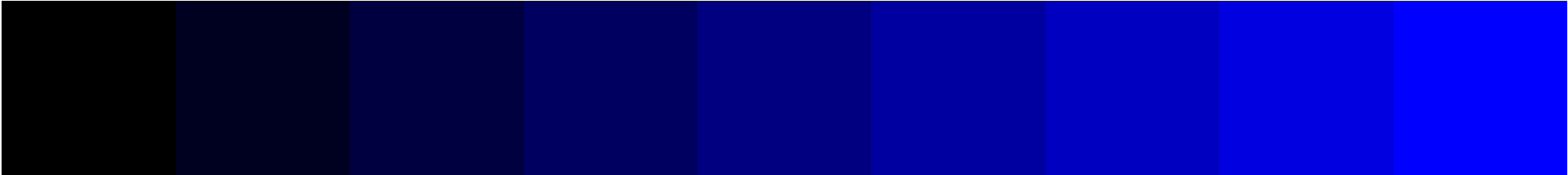
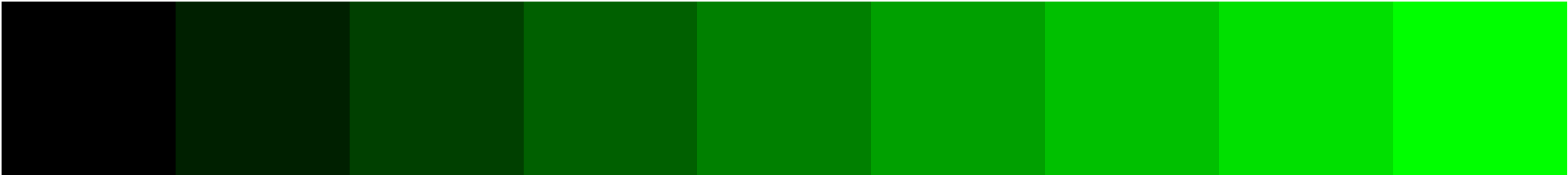
Olive
(128, 128, 0)
#808000



Teal
(0, 128, 128)
#008080







Color names in web development

How to use HTML color names

Just like Hex color codes, HTML color names can be used with inline HTML styles or in a separate CSS stylesheet.

HTML

```
<!-- In your HTML document -->
<body>
  <h1 style="color:IndianRed">Indian Red Title Text</h1>
  <p style="color:SlateGray">Slate gray paragraph text</p>
</body>
```

CSS

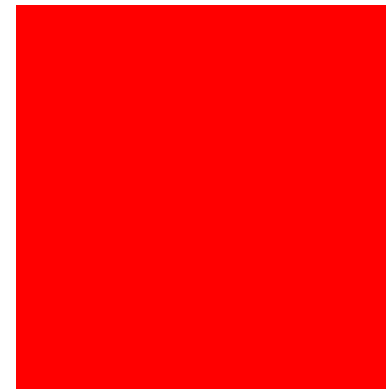
```
/* In your .css stylesheet */
h1 { color: IndianRed; }
p { color: SlateGray; }
```

- <https://www.color-blindness.com/color-name-hue/>
 - <https://www.color-name.com/>
 - <https://colornames.org/>
-



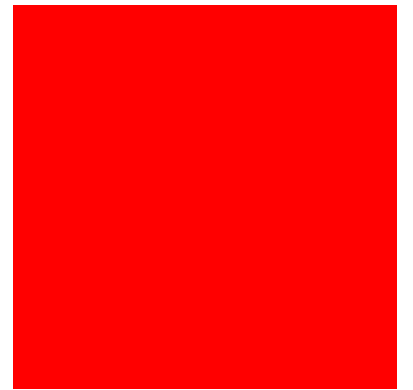
Saturation



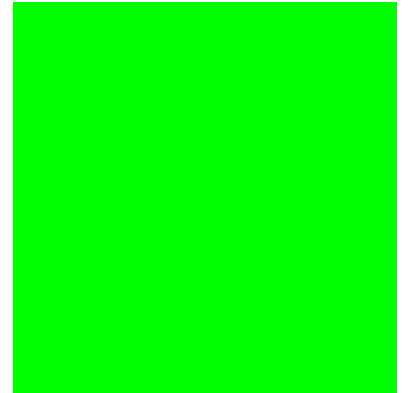




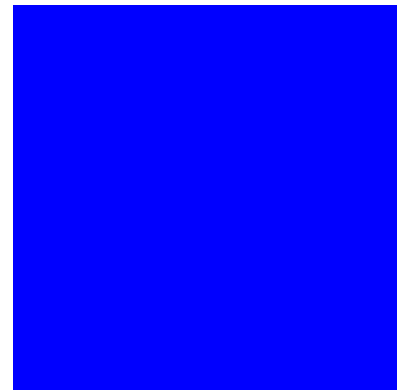
Sunset
rgb(192, 64, 64)
hsl(0,129,128)
#C04040

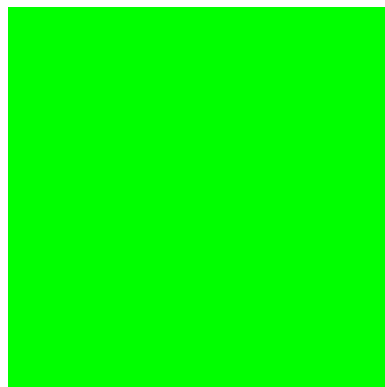
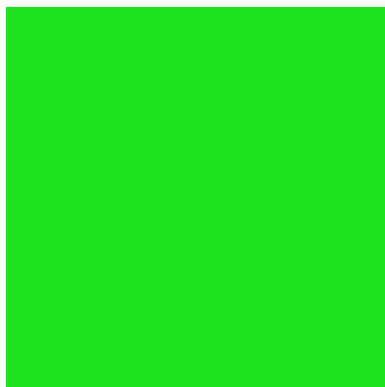
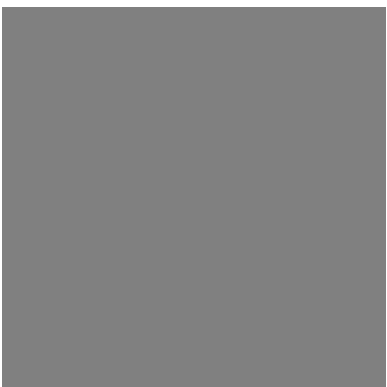
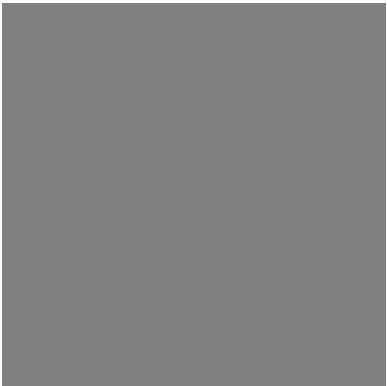


Lime Green
rgb(64, 192, 64)
hsl(85,129,128)
#C04040

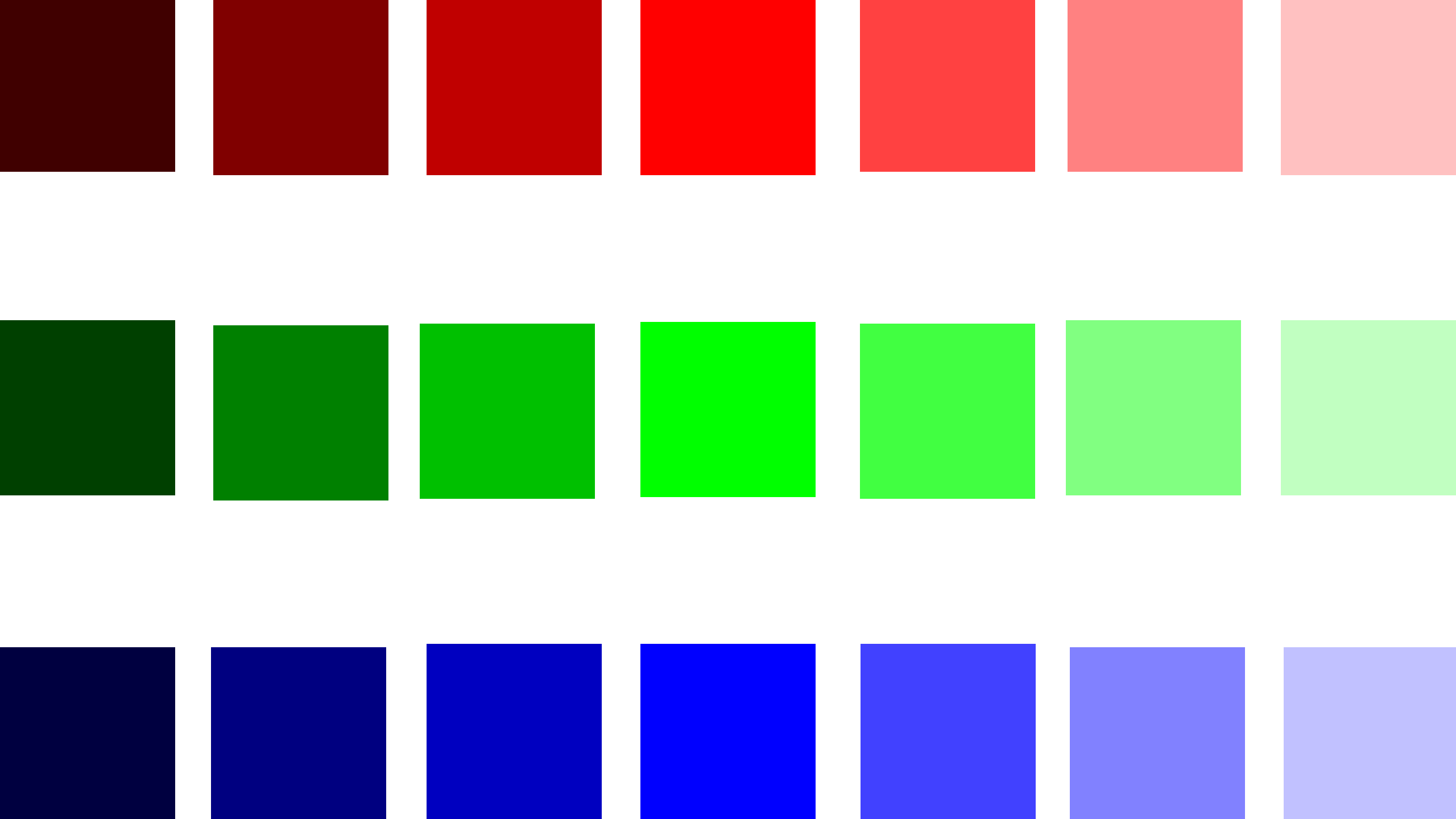


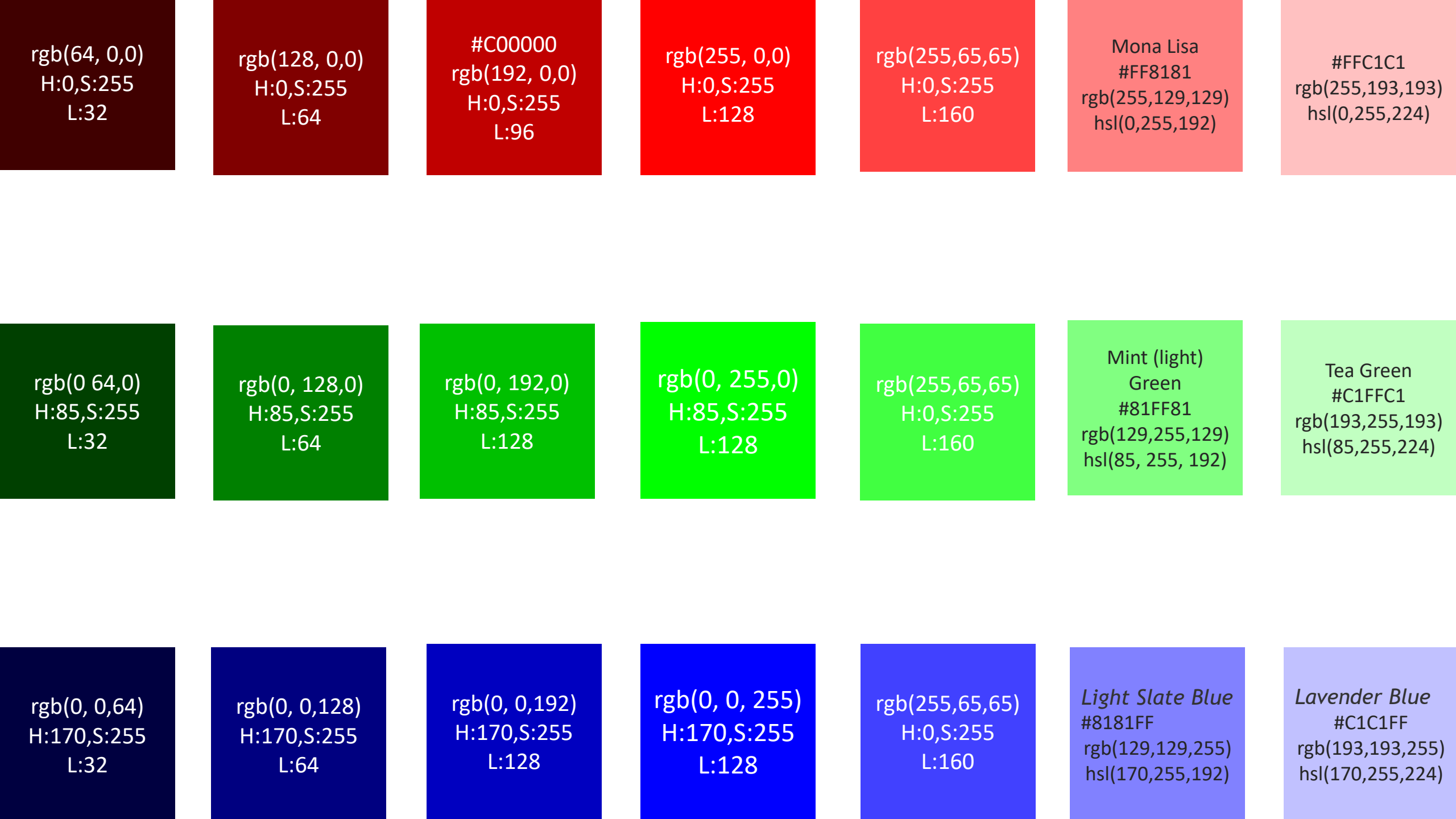
Free Speech Blue
rgb(64,64, 192)
hsl(170,129,128)
#4040C0





Luminosity





Color contrast

Color relationships (harmony rules)

Adobe Color

CREATE EXPLORE TRENDS LIBRARIES

Color Wheel Extract Theme Extract Gradient Accessibility Tools New

Apply Color Harmony ⓘ

Rule

- ☒ Analogous
- ☐ Monochromatic
- ☐ Triad
- ☐ Complementary
- ☐ Split Complementary
- ☐ Double Split Complementary
- ☐ Square
- ☐ Compound
- ☐ Shades
- ☐ Custom

Color harmony
The color rules ensure a harmonic balance of colors based on the color you have set as Base Color.

Color wheel (or image in Extract Theme tab) can be used to generate color palette, which can be saved into Creative Cloud, after signing in.

You can then use your saved color themes, in Adobe products (Photoshop, Illustrator, Fresco etc.), via Adobe Color theme panel or CC Libraries.

Save

A B C D E

#4FF663 #61D444 #A8EBS7 #CSD444 #F6EA4F

Color Mode
RGB

	A	B	C	D	E
R	79	97	168	197	246
G	246	212	235	212	234
B	99	68	87	68	79
Lightness	96	83	92	83	96

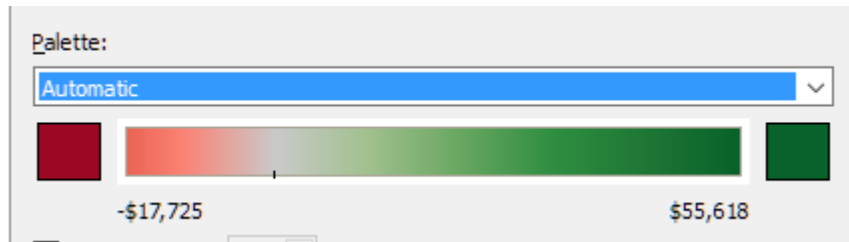
Color harmony rule

- Analogous
- Monochromatic
- Triad
- Complementary
- Split complementary
- Double split complementary
- Square
- Compound
- Shades

Color schemes



- Sequential
 - Monochromatic
 - Divergent



- Divergent
- Categorical (a.k.a. qualitative)
Palette

[https://en.wikipedia.org/wiki/Color_depth#True color \(24-bit\)](https://en.wikipedia.org/wiki/Color_depth#True_color_(24-bit))

Psychology

- **Orange** is energetic and warm. Some common associations with orange include creativity, enthusiasm, lightheartedness, and affordability.
- **Red** is the color of blood, so it's often associated with energy, war, danger, and power but also passion, desire, and love. Some common associations with red include action, adventure, aggression, and excitement.
- **Yellow** evokes positivity, youth, joy, playfulness, sunshine, and warmth.
- **Pink** evokes feelings of innocence and delicateness, gratitude, romance, softness, and appreciation.
- **Blue** is perceived as authoritative, dependable, and trustworthy. Common associations with blue include calmness, serenity, confidence, dignity, and security.
- **Green** is the color of nature. It symbolizes growth, freshness, serenity, money, health, and healing.
- **Black** represents power, elegance, and authority. Common associations with black also include class, distinction, formality, mystery, secrecy, and seriousness.

Accessibility (luminosity contrast ratio)

- <https://www.w3.org/WAI/perspective-videos/contrast/>
- <https://accessible-colors.com/>
- <https://web.dev/color-and-contrast-accessibility/>

Color models

RGB, HSL, Pantone

References

Books

- 2017 Katherine A. Hughes - Graphic Design Learn It, Do It.pdf
- 2016 Rhyne, Theresa Marie - Applying color theory to digital media and visualization.pdf
- 2017 Samara, Timothy - Making and breaking the grid _ a graphic design layout workshop.pdf

Random color match

- https://codepen.io/polly_nomial/pen/sGKlv
- $n = 2 \# n = 2, 4, 8$
- `return (256/n)*Math.floor(Math.random() * n);`
- <https://github.com/davidmerfield/randomColor>
- <https://www.npmjs.com/package/randomcolor>
- https://www.kirupa.com/html5/generating_random_colors.htm
- <https://css-tricks.com/snippets/javascript/random-hex-color/>
- <https://thisinterestsme.com/random-color-javascript/>
- https://dev.to/akhil_001/generating-random-color-with-single-line-of-js-code-fhj
- <https://www.youtube.com/watch?v=GMxR6ZJDiMo>

https://codepen.io/polly_nomial/pen/sGKIv

```
var myArray= [0, 128, 255];  
return myArray[Math.floor(Math.random()*myArray.length)];
```

codepen.io/polly_nomial/pen/sGKIv

Apps Engtk Chedra Walmart H&M Citibank Yelven PozoAlmendros FEMSA Imported Modelorama Canva Brainstorming - Go... Reading list

Random RGB Color Generator v1

David Carter + Follow

Settings Change View Sign Up Log In

HTML

```
1 <div id="textContainer">  
2   <p id="text">!!! sO rAndOm !!!</p>  
3   <p id="color"></p>  
4 </div>  
5  
6 <div id="buttonContainer">  
7   <a href="#" id="button">Give me a random  
   color</a>
```

CSS (Sass)

```
10  
11 #color  
12   font-size: 5px  
13   margin-top: 25px  
14   color: #fff  
15  
16 #buttonContainer  
17   margin: 50px 0
```

JS

```
255  
5 function randomNum() {  
6   n = 2  
7   return (256/n)*Math.floor(Math.random()  
8   * n);  
9 }  
10 // Returns an array of 3 values for rgb
```

!!! sO rAndOm !!!

rgb(128, 0, 128)

GIVE ME A RANDOM COLOR!

- https://www.w3schools.com/colors/colors_2021.asp
- <https://mode.com/blog/how-to-use-brand-color-palette-in-data-visualizations/>
- <https://ubiq.co/analytics-blog/5-best-color-palettes-business-dashboard/>
- <https://www.pinterest.com/gregmarkzimmerman/trending-data-visualization-design/>
- <https://www.quicksprout.com/trending-website-color-schemes/>
- <https://visme.co/blog/website-color-schemes/>
- [Canva course on graphic design basics](#)

- <https://blog.prototypr.io/q-a-how-can-digital-designers-mix-rgb-colors-more-effectively-74aa6915ed97>
- https://www.rapidtables.com/web/color/RGB_Color.html
- <http://changingminds.org/explanations/perception/visual/hsl.htm#:~:text=Luminosity%20is%20a%20measure%20of,as%20in%20the%20image%20below.>
- <https://www.carbondesignsystem.com/data-visualization/chart-types/>
- <https://www.displayr.com/choosing-color-palettes-in-displayr/>
- <https://www.datanovia.com/en/blog/top-r-color-palettes-to-know-for-great-data-visualization/>
- [Adobe guide for data visualization](#)
- [Material Design / Data Visualization](#)

Color Schemes/palettes

- <https://color.adobe.com/create/color-wheel>
- <https://coolers.co/>
- <https://mycolor.space/>

[How to choose a brand color palette](#)

GAMES

- <https://color.adobe.com/color-wheel-game>
- <https://color.method.ac/>
- <https://www.proprofsgames.com/colour-mixing/>
- Android apps:
- [RGBit - Color Mixing Game](#)
- [Color Mixer - Match, mix, learn colors for Free](#)
-

Accessibility

- Color contrast
- [Accessibility course](#)
- <https://webaim.org/articles/contrast/>
- <https://webaim.org/resources/contrastchecker/>
- <https://digital.cigna.com/patterns-and-components/accessibility-implementation/color-contrast-grids#full-grid>

Color contrast

- <https://www.cambridgeincolour.com/tutorials/histograms1.htm>
- <https://www.deepspacesparkle.com/teach-contrast-emphasis/>
- <https://processingraw.com/tutorial-dynamic-contrast/>
- <https://blog.nightnurse.ch/09/2020/tutorial-color-in-composition/>
- [For charts](#)
- <https://www.gimp.org/tutorials/ContrastMask/>
- https://worqx.com/color/color_proportion.htm
- <https://www.photoshopessentials.com/photo-editing/contrast-black-and-white/>

Colors for digital displays

- <https://www.uxmatters.com/mt/archives/2006/01/color-theory-for-digital-displays-a-quick-reference-part-i.php>
- [https://www.gimp.org/tutorials/Basic Color Curves/](https://www.gimp.org/tutorials/Basic%20Color%20Curves/)
- <https://blog.frame.io/2017/09/20/beginners-guide-to-color-curves/>
- <https://mixinglight.com/color-grading-tutorials/>
- <https://www.rocketstock.com/blog/color-grading-color-correcting-tutorial/>
- <https://www.bhphotovideo.com/explora/video/tips-and-solutions/introduction-color-grading>

Photoshop tutorials

- <https://helpx.adobe.com/photoshop/using/curves-adjustment.html>
- <https://helpx.adobe.com/photoshop/using/adjust-color-tone-levels-curves.html>
- <https://helpx.adobe.com/photoshop/using/adjusting-color-tone-cs6.html>
- <https://helpx.adobe.com/photoshop/using/adjusting-hue-saturation.html>
- <https://helpx.adobe.com/photoshop/using/convert-color-image-black-white.html>
- <https://helpx.adobe.com/photoshop/using/adjust-shadow-highlight-detail.html>
- <https://helpx.adobe.com/photoshop/using/levels-adjustment.html>