

Creating art with CSS

Chen Hui Jing / @hj_chen





Surname

First name

陈	慧	晶
Chen	Hui	Jing



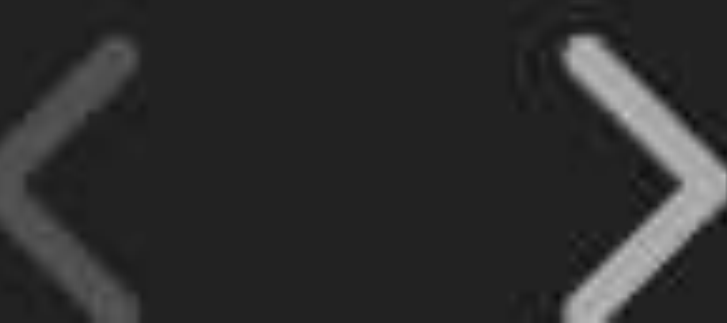
@hj_chen





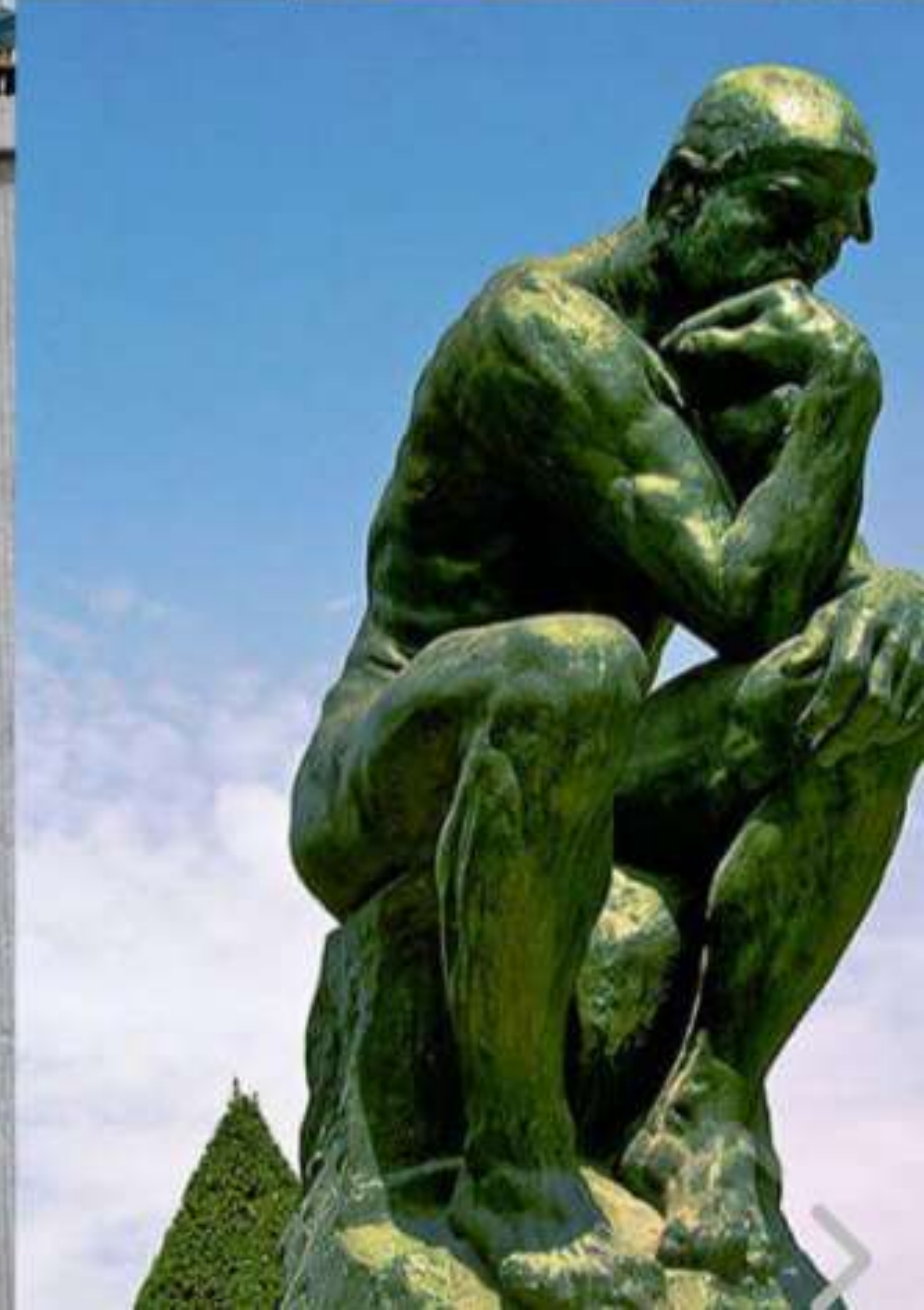
🥑 Developer Advocate 🥑

nexmo®
The Vonage® API Platform



What is Art?







Art

“ The *application of skill* to the *production of the beautiful* by imitation or design, or an occupation in which skill is so employed, as in painting and sculpture; one of the fine arts; as, he prefers art to literature.

—Webster's 1913

”



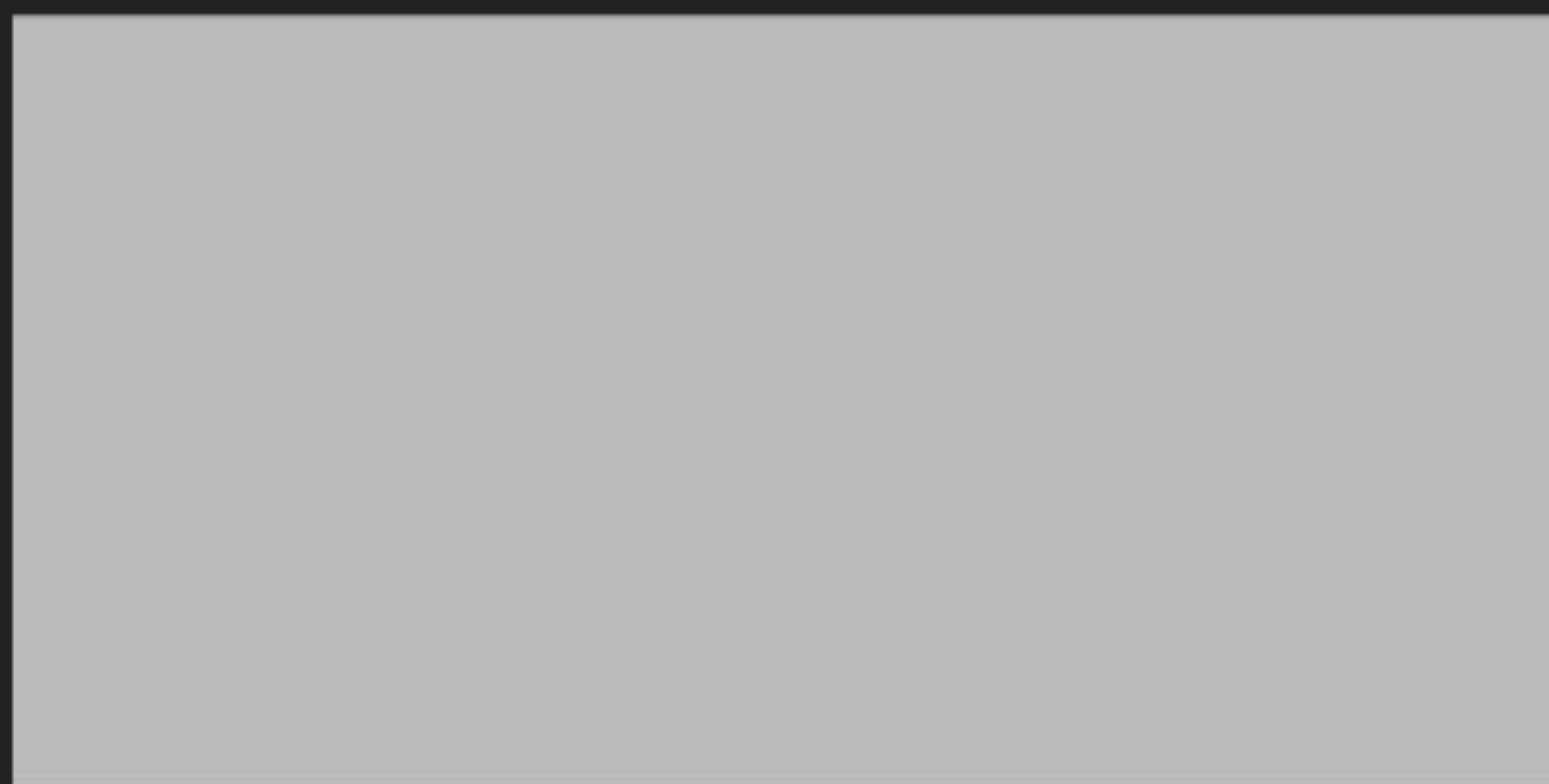




Basic shapes with CSS

- width & height
- border-radius
- border

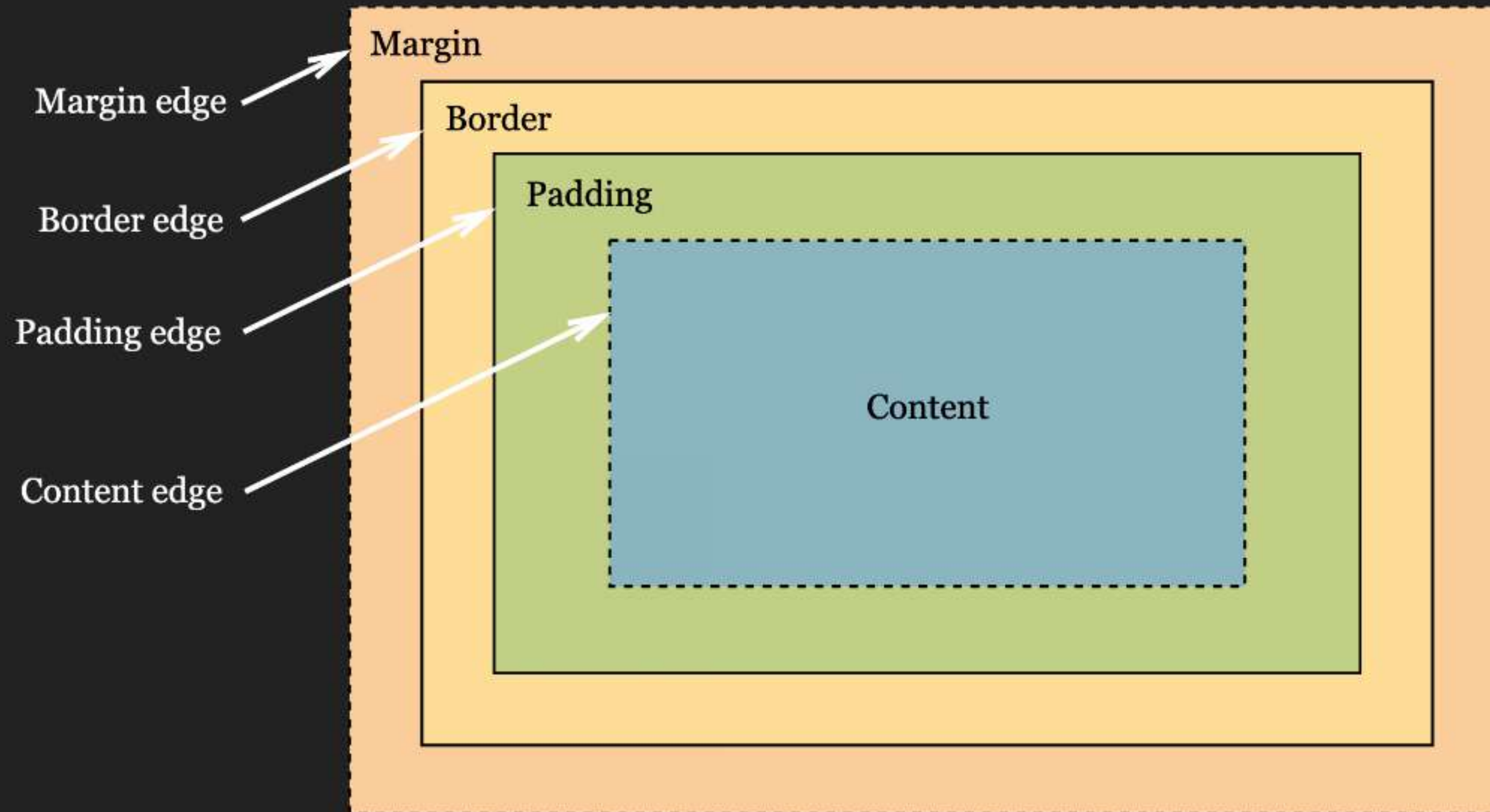
Rectangles



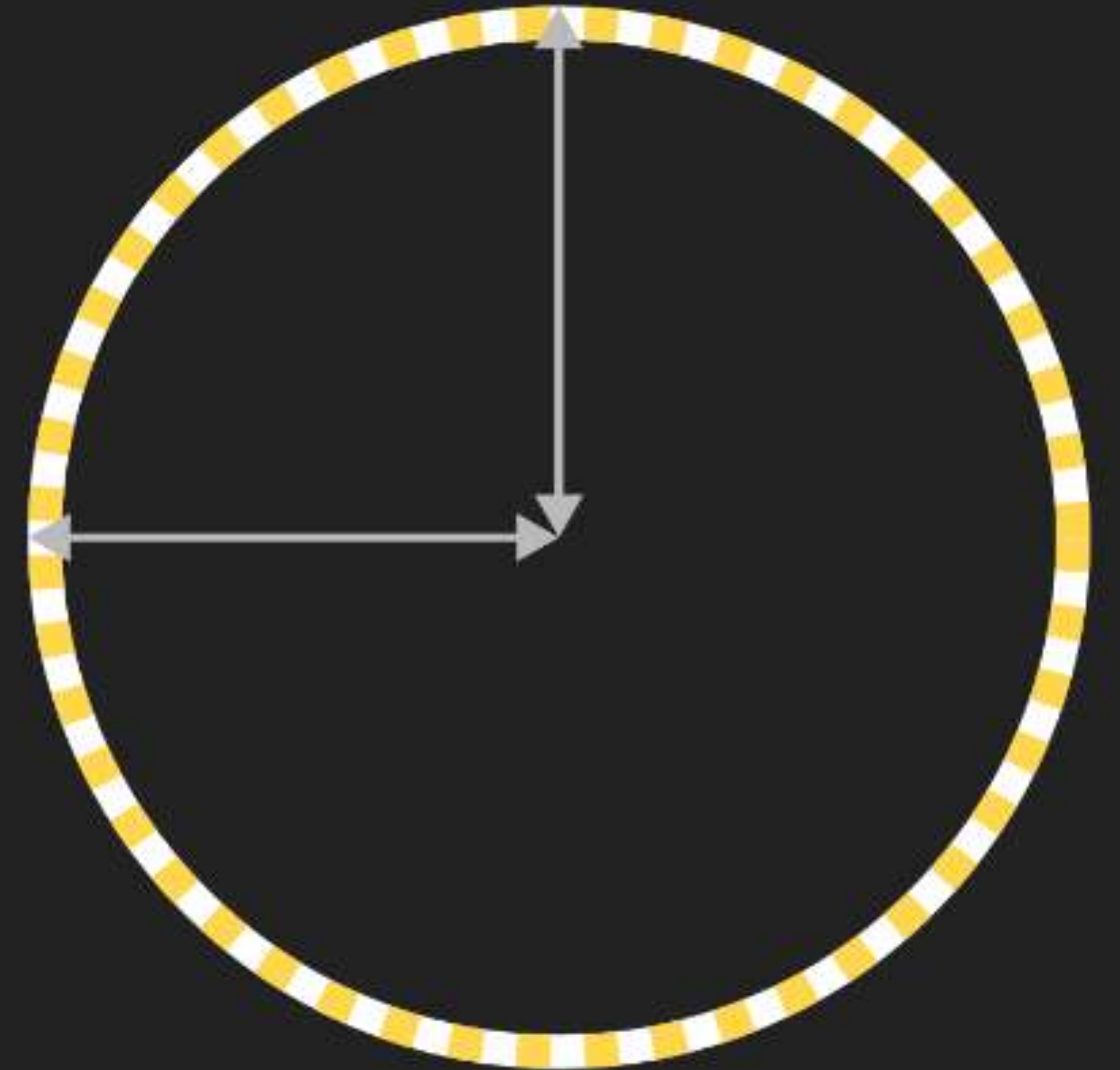
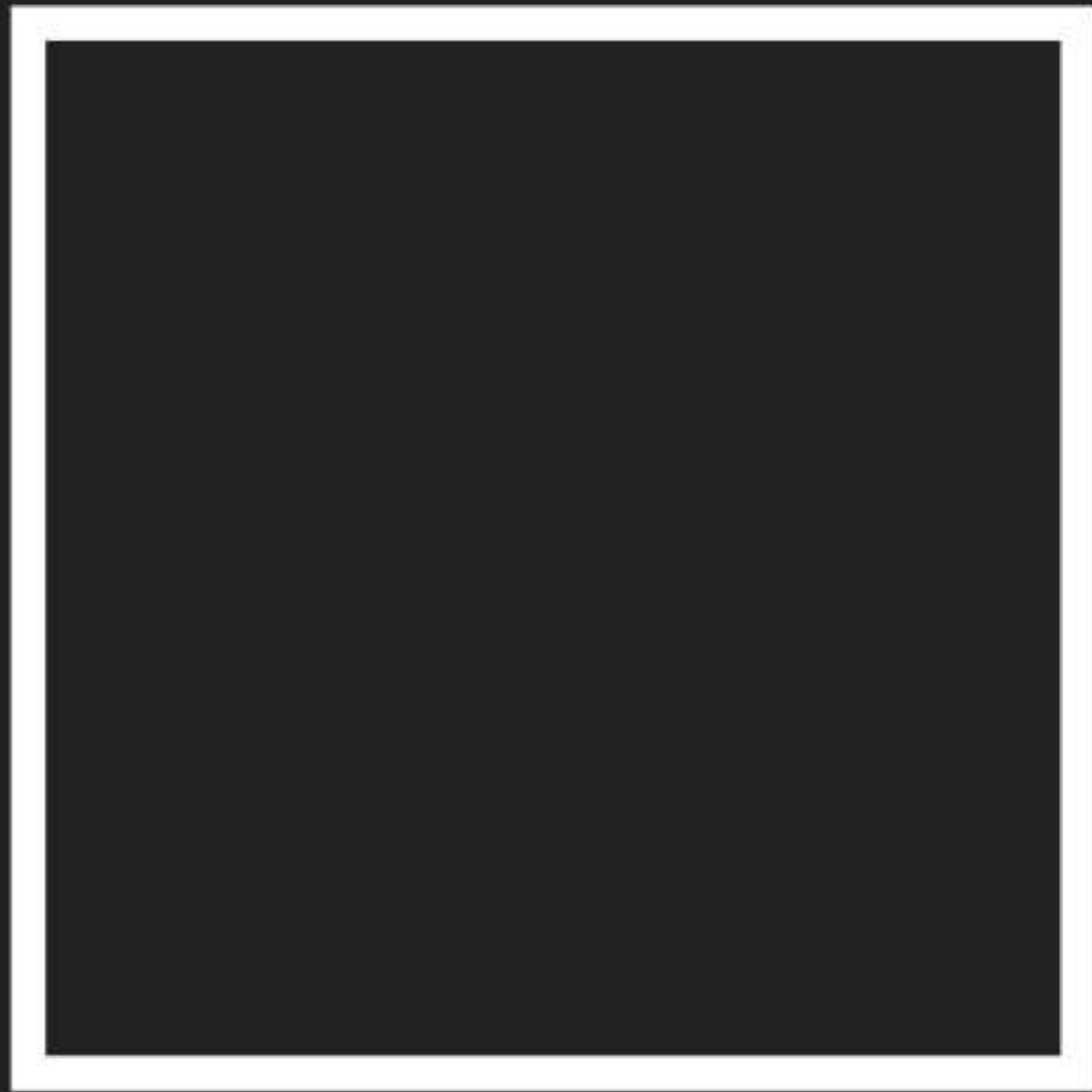
```
.rectangle {  
  width: 60vmin;  
  height: 30vmin;  
  background: #bababa;  
}
```



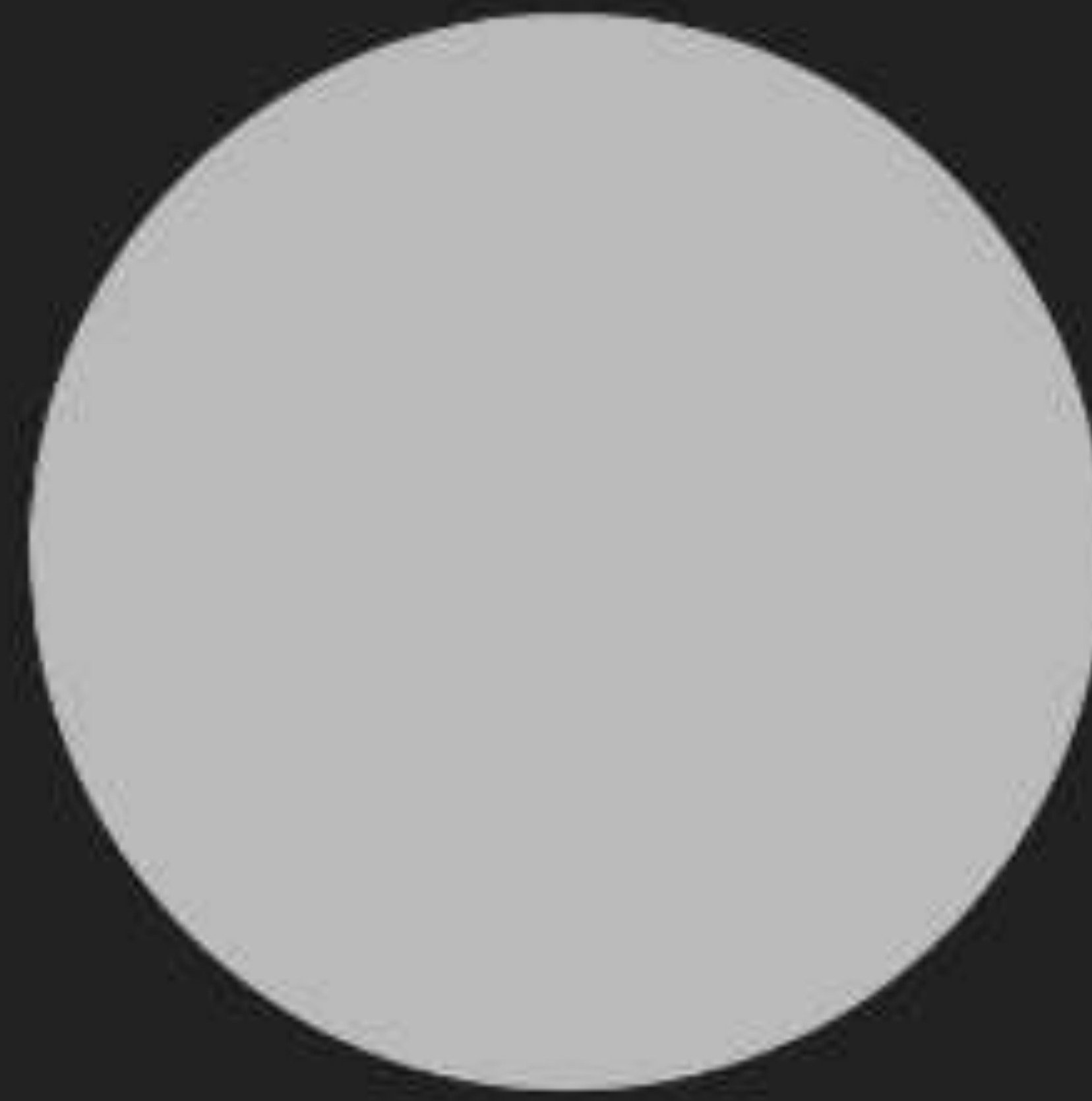
The box model



The border-radius property



Circles



```
.circle {  
  width: 30vmin;  
  height: 30vmin;  
  background: #bababa;  
  border-radius: 50%; /* This is the key line, right here */  
}
```





1-value syntax
`border-radius: 1em`



2-value syntax
`border-radius: 1em 2em`



3-value syntax
`border-radius: 1em 2em 3em`



4-value syntax
`border-radius: 1em 2em 3em 4em`



Semi-circles



```
.semicircle-top {  
  width: 30vmin;  
  height: 15vmin;  
  border-radius: 15vmin 15vmin 0 0;  
}
```

```
.semicircle-left {
```



Quarter-circles

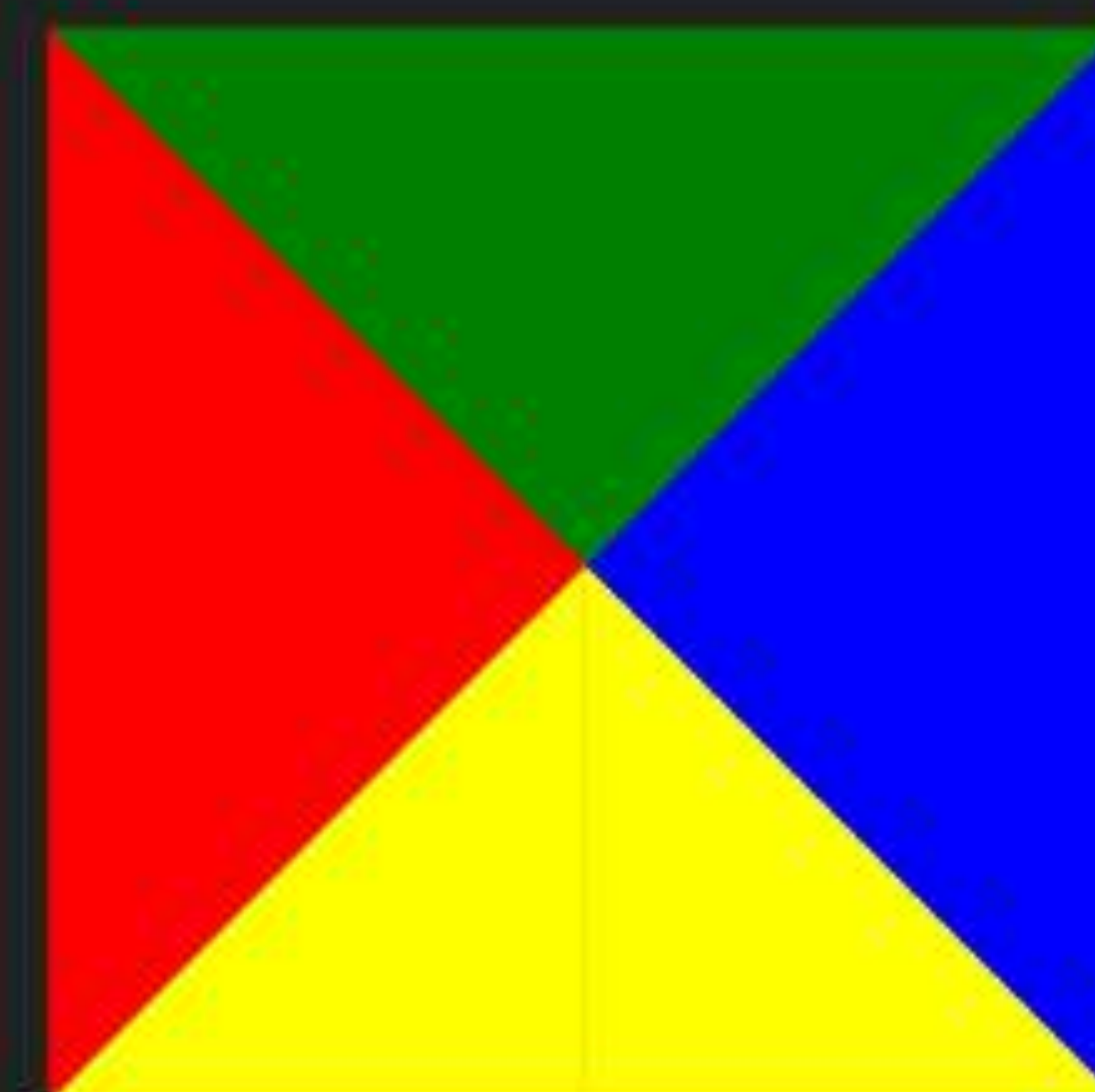
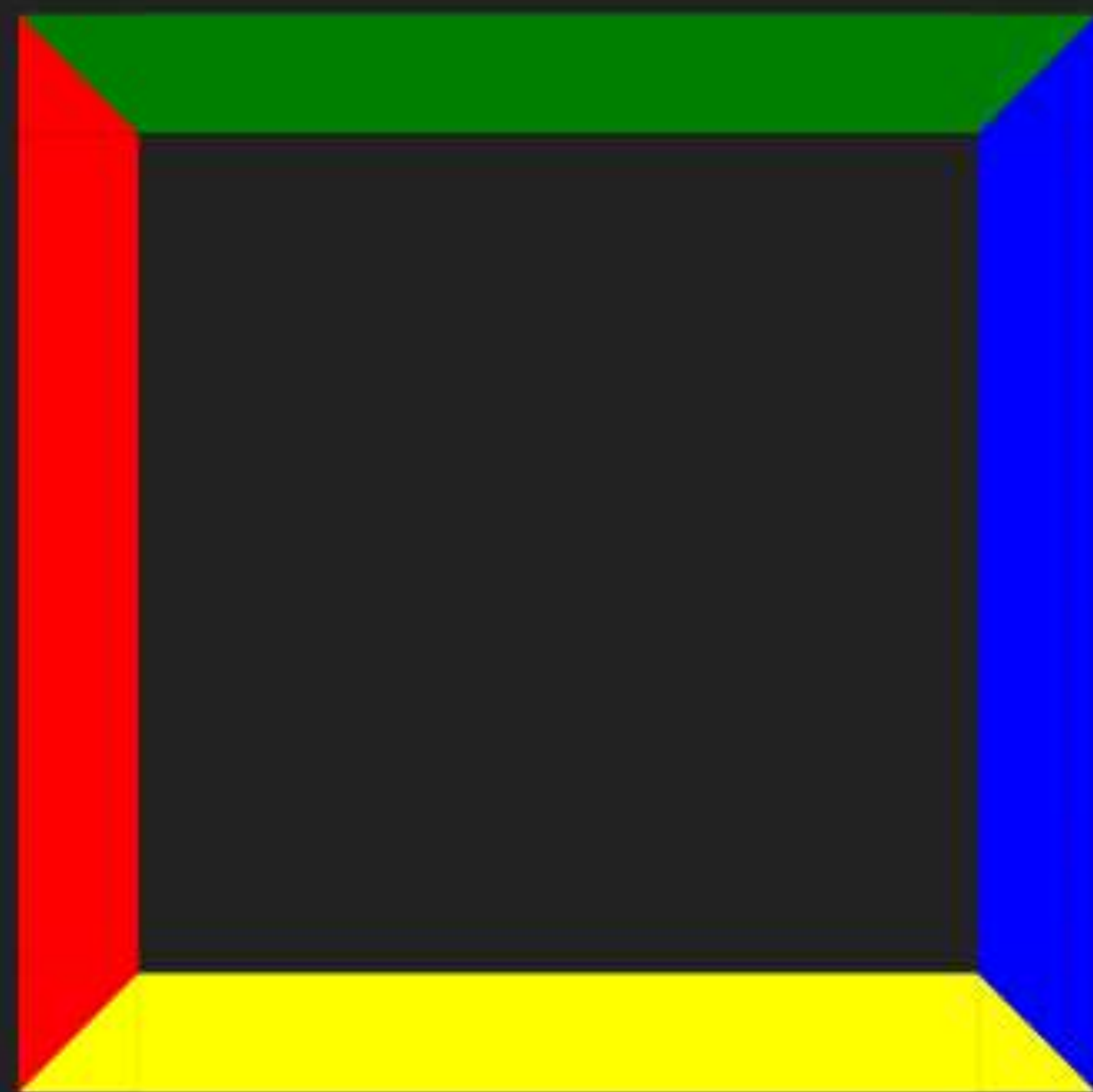


```
.quartercircle-nw {  
  height: 15vmin;  
  width: 15vmin;  
  border-radius: 100% 0 0 0;  
}
```

```
.quartercircle-ne {
```



Triangles



Transparent is a colour in CSS.

border-left width (transparent)

border-right width (transparent)

border-bottom width (colour)



Isosceles Triangles



```
.triangle-top {  
  border-right: 15vmin solid transparent;  
  border-bottom: 15vmin solid #bababa;  
  border-left: 15vmin solid transparent;  
}
```

```
.triangle-right {
```



Right-angled Triangles



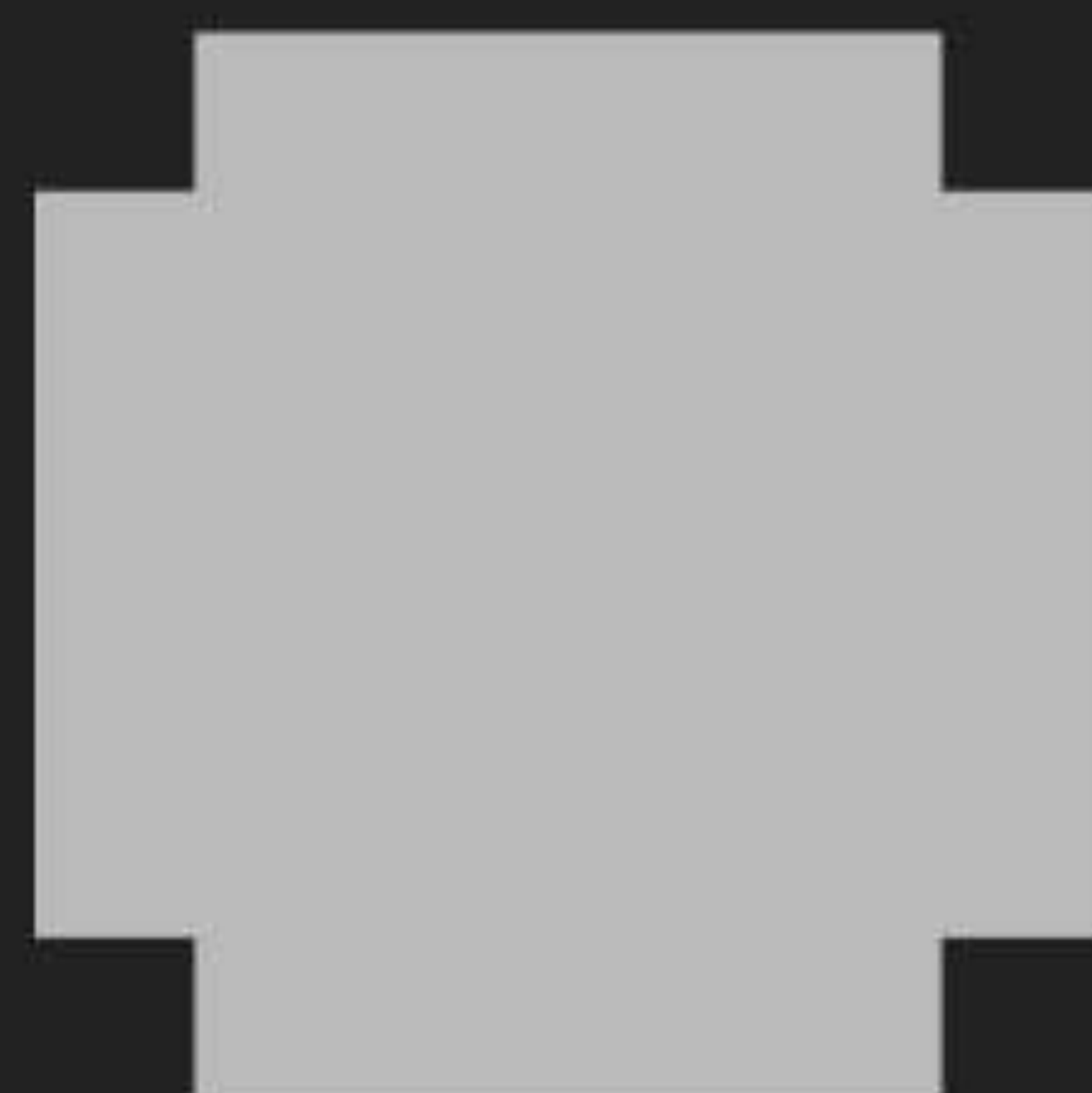
```
.triangles .triangle-nw {  
  border-right: 15vmin solid  
transparent;  
  border-top: 15vmin solid #bababa;  
  
}  
  
.triangles .triangle-ne {  
  border-left: 15vmin solid  
transparent;
```



Complex shapes with CSS

- clip-path
- border-radius
- transform

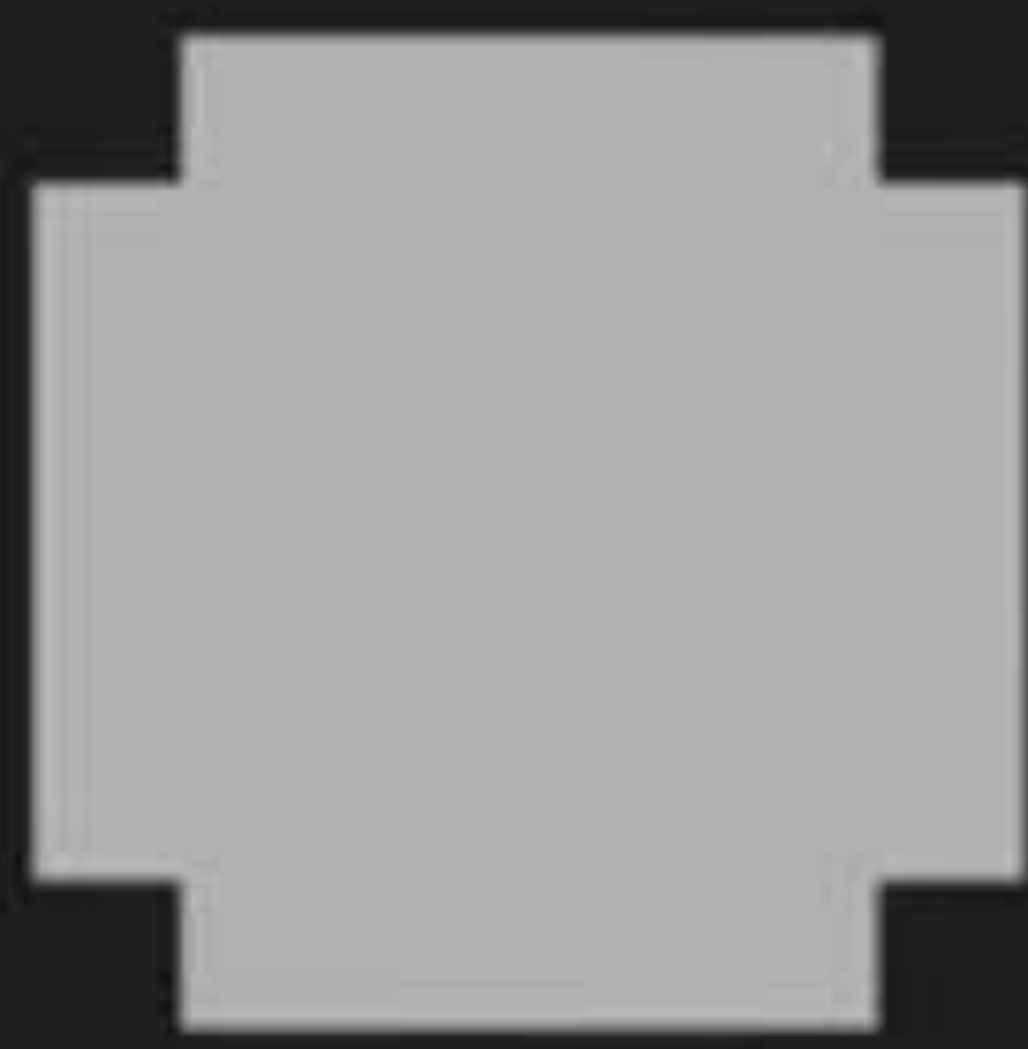
Polygons



```
.trapezium {  
  width: 60vmin;  
  height: 30vmin;  
  background: #bababa;  
  clip-path: polygon(33% 0, 67% 0, 100% 100%, 0% 100%);  
}
```



Polygons



```
trapezium {  
  width: 60vmin;  
  height: 30vmin;  
  background: #bababa;  
  clip-path: polygon(33% 0, 67% 0, 100% 100%, 0% 100%);  
}
```

Search HTML

<h2>Polygons</h2>

<div style="display: flex; justify-content: space-around; align-items: center">

flex

<div class="trapezium"></div>

<div class="rabbet"></div>

<div class="star"></div>

</div>

<pre>...</pre>

<aside class="notes">...</aside>

</section>

< s > section.stack.present > section.present > div > di



Rules

Layout

Computed

Changes

For



Filter Styles

:hov .cls

Pseudo-elements

This Element

element {

}

div.star {

width: 45vmin;

height: 45vmin;

background: #bababa;

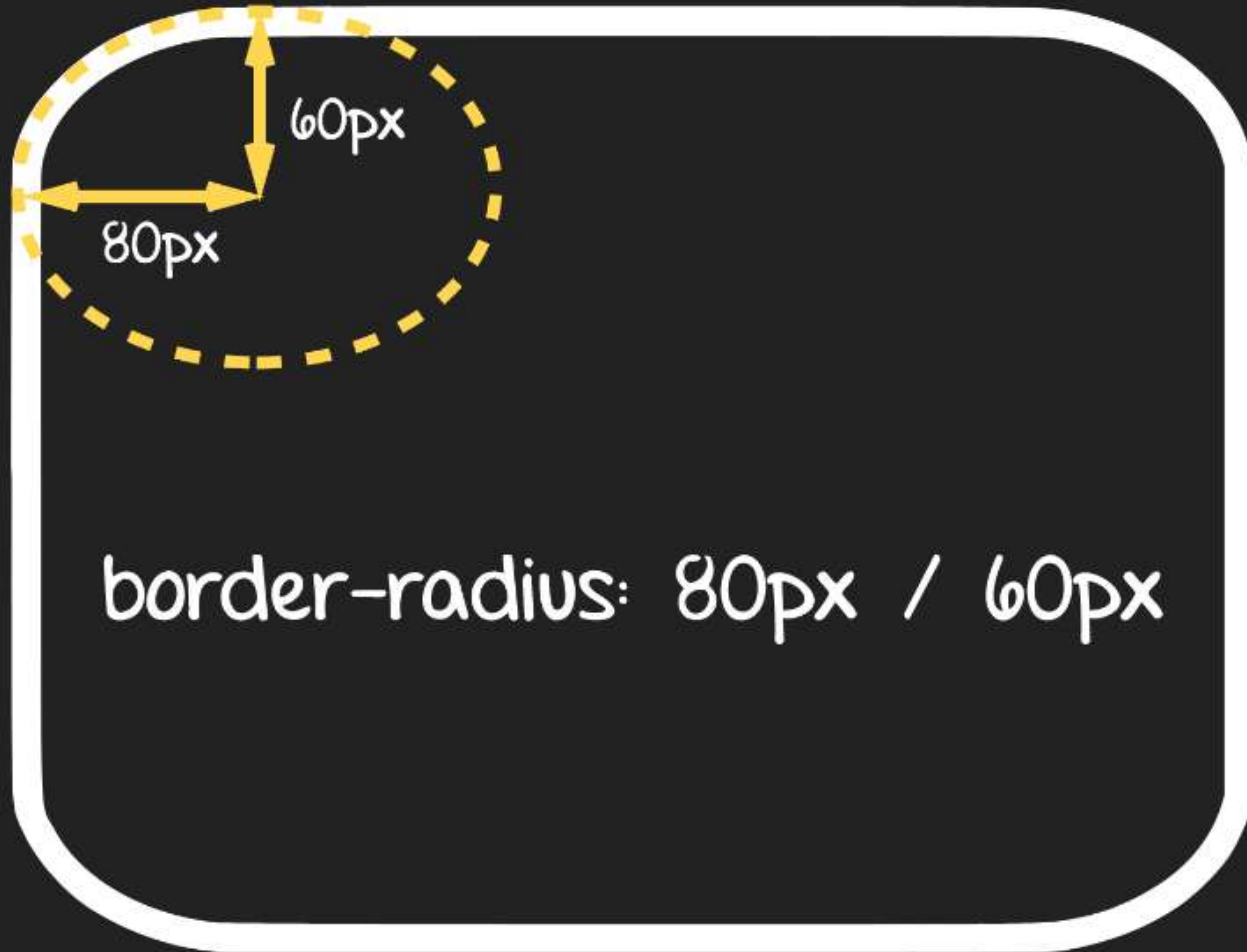
clip-path: polygon(50% 0%, 61% 35%, 98% 35%, 98% 57%, 79% 91%, 50% 70%, 21% 91%, 32% 57%, 2% 39% 35%);

}

html, body, div, span, applet, object,

rese

Irregular shapes

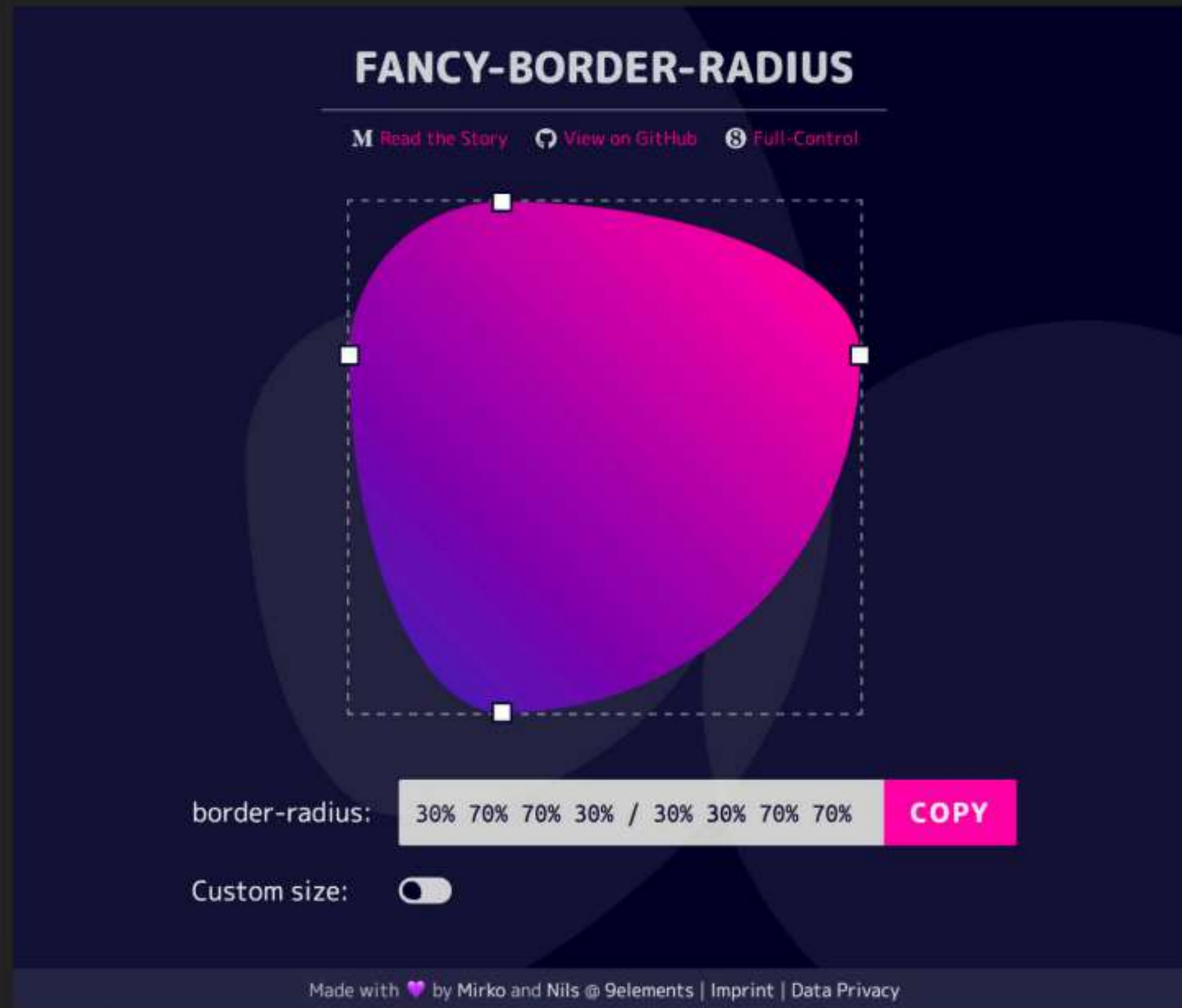


Irregular shapes



```
div:first-child {  
  width: 45vmin;  
  height: 45vmin;  
  background: $linkColor;  
  border-radius: 100% 0% 60% 40% / 60% 0% 100% 40%;  
}
```



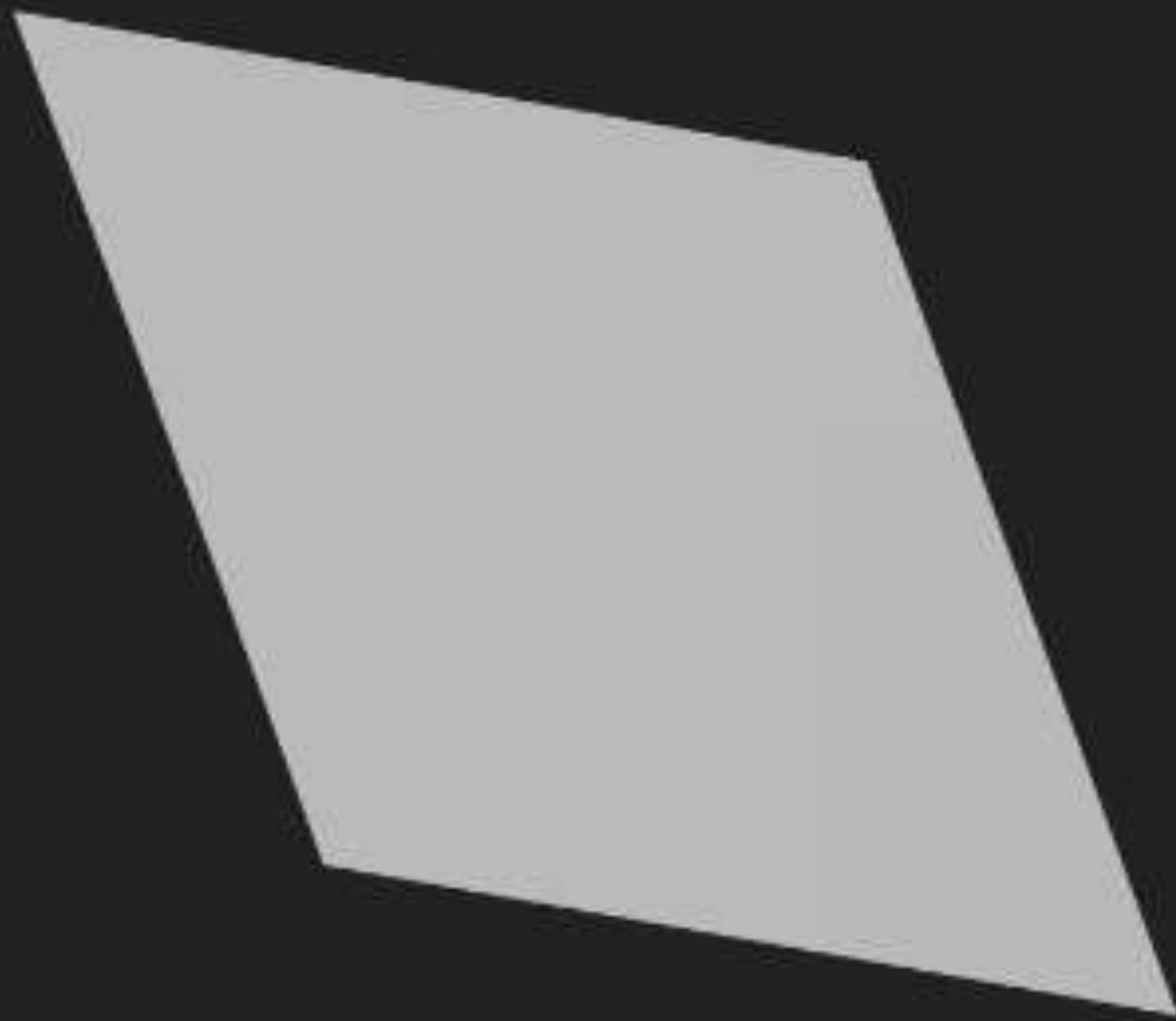


<https://9elements.github.io/fancy-border-radius/>



Transforms

Transform functions include, `rotate()`, `scale()`, `translate()` and `skew()`. Each transform is cumulative and operate from their `transform-origin`.



```
.transforms .box {  
  transform: rotate(0deg);  
  //transform: scale(0, 0);  
  //transform: translate(0, 0);  
  transform: skew(20deg, 10deg);  
  transform-origin: 100% 50%;  
}
```



Transforms

```
/* If you need multiple transforms, do this */  
.element {  
  transform: translate(-10px, -20px) scale(2) rotate(45deg)  
}
```

```
/* Do NOT do this */  
.element {  
  transform: translate(-10px, -20px);  
  transform: scale(2);  
  transform: rotate(45deg);  
}
```



Creating/combining multiple shapes

- `::before` & `::after`
- Positioning
- `linear-gradient()` & `radial-gradient()`
- `box-shadow`



A single div

Pseudo-elements

::before and ::after

```
.element::before {  
  content: '';  
  display: block;  
  width: 50%;  
  height: 50%;  
}
```

Must have the `content` property to work

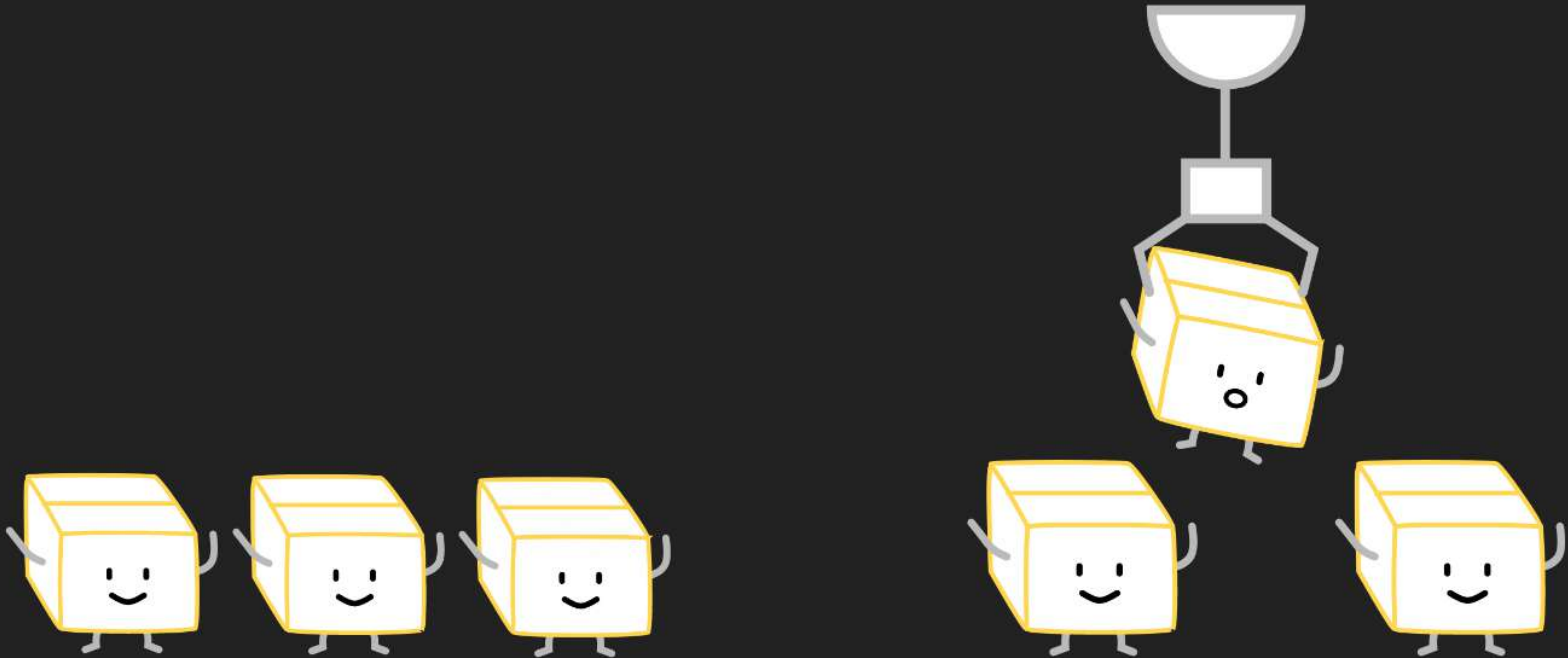
At least have empty quotes

Not visible in the page's source, only in CSS



Positioning

static, relative, absolute, sticky



A CSS heart



```
content: '';  
background-color: red;  
height: 30vmin;  
width: 30vmin;  
border-radius: 50%;  
position: absolute;  
}  
  
.heart .box::before {  
  top: -15vmin;  
  left: 0;  
}
```



Gradients

Can be used in any property that accepts images, e.g. `background`, `list-style-image` etc.

```
linear-gradient( [ <angle> | <side-or-corner> ]?, <color-stop-list>
```

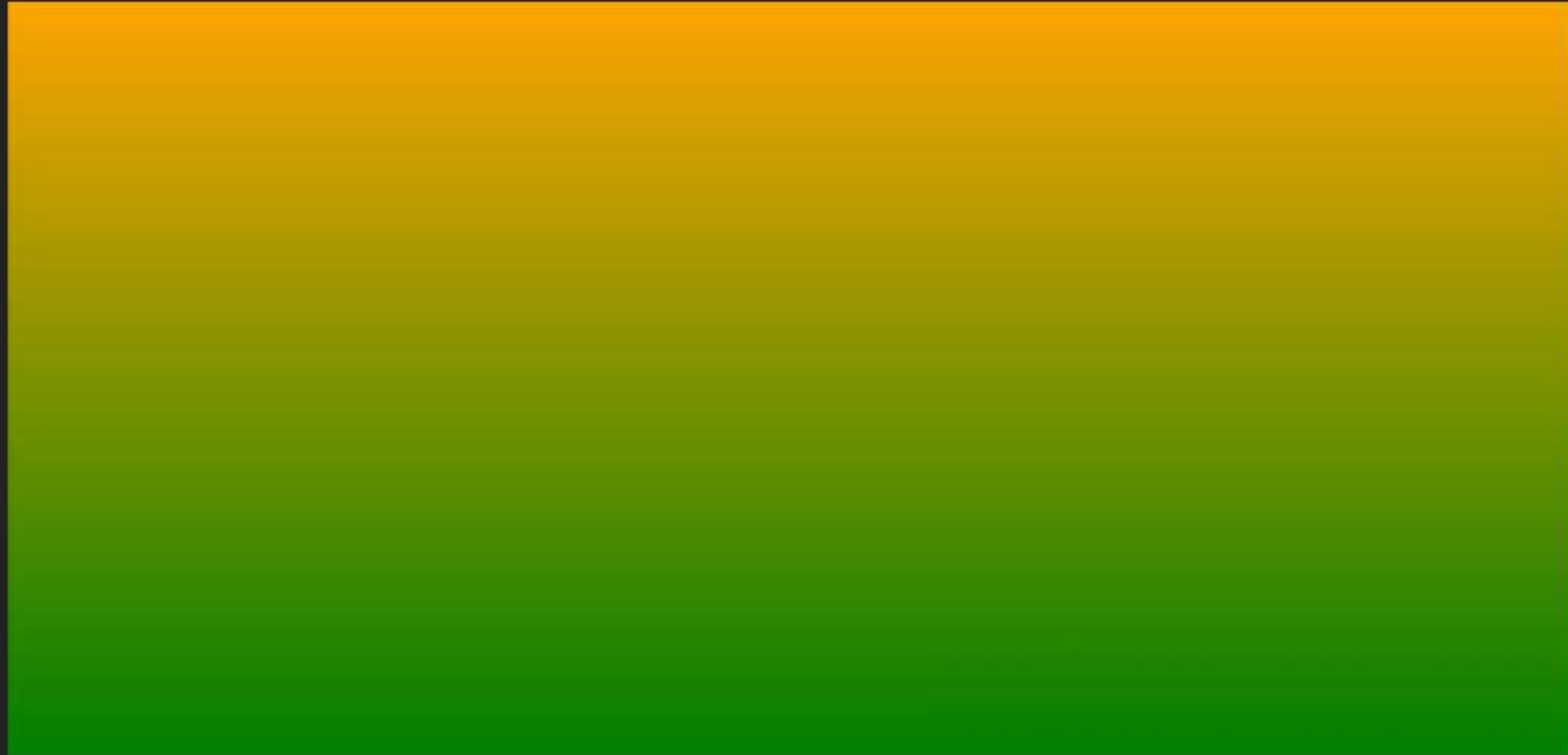
First argument specifies gradient line, defaults to `to-bottom` if omitted. Can use angle or keyword.

```
<color-stop-list> = <color-stop>#{2,}  
<color-stop> = <color> <length-percentage>?
```

At least 2 values, no maximum limit. Between 2 colour stops, the line's colour is linearly interpolated between the 2 colours.



For clean change between 2 colours, have 2 colour stops at the same position, i.e. at least 4 `<color-stop>` values needed.

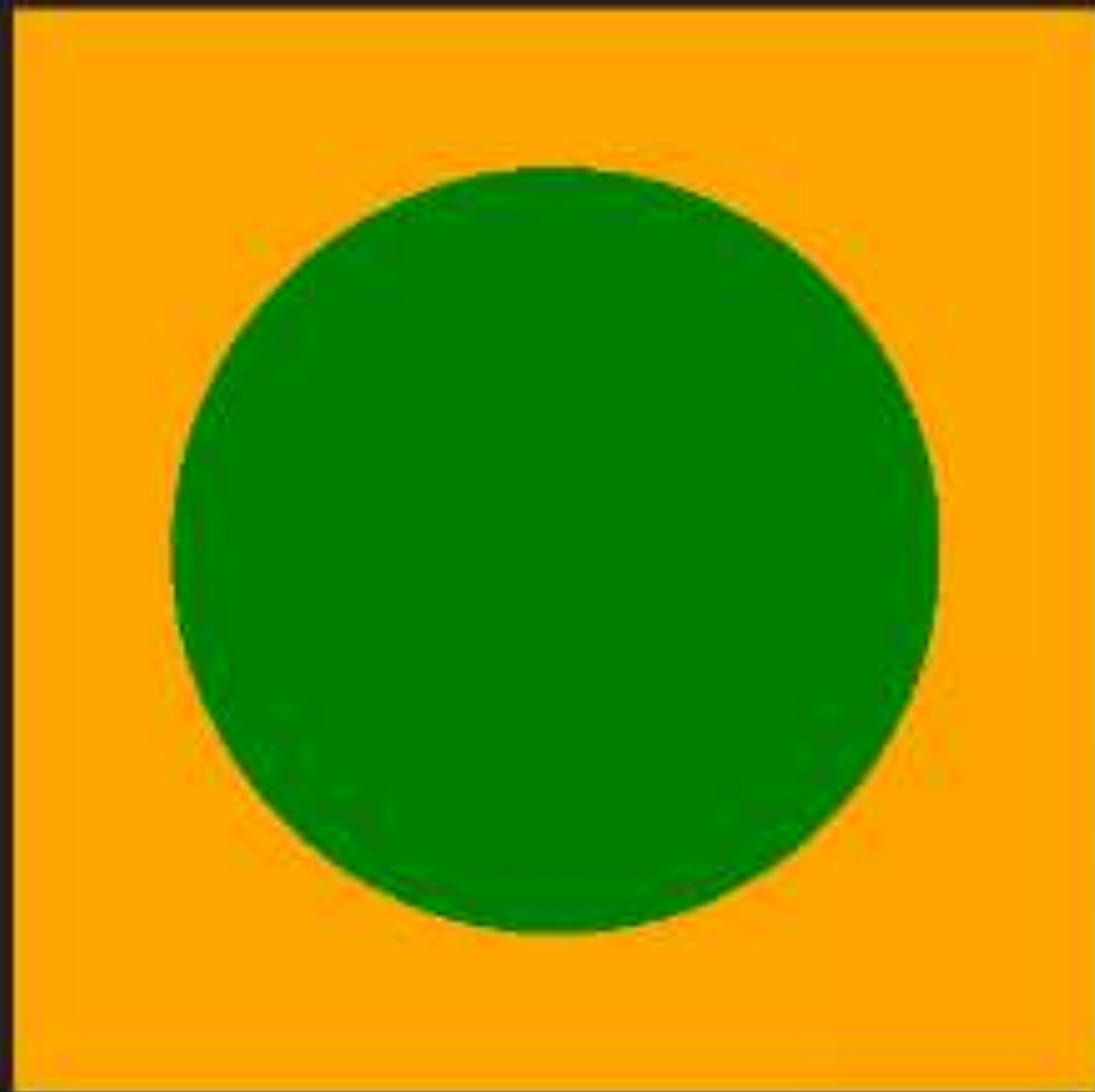
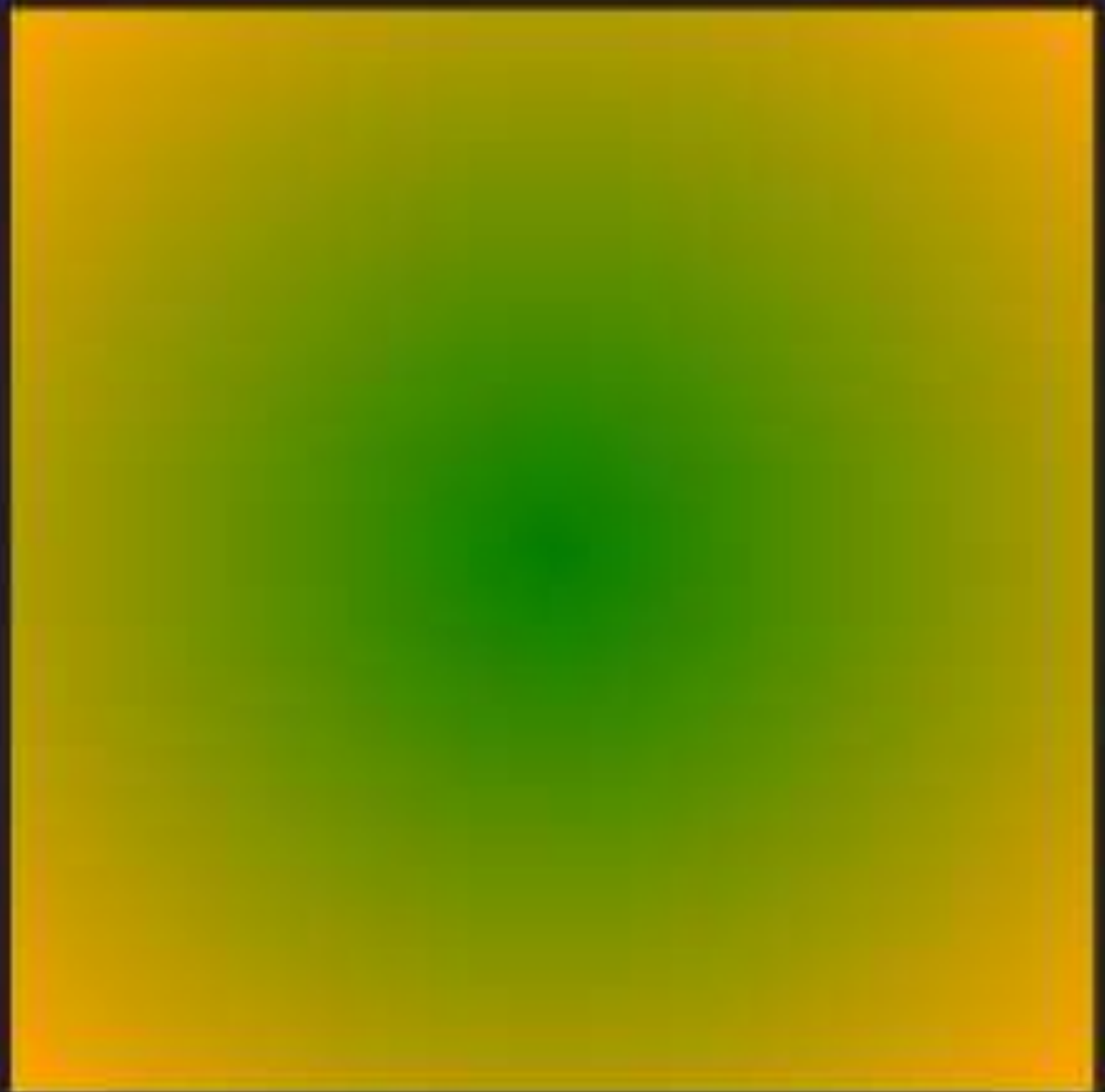


```
.element {  
  background-image: linear-gradient(to bottom, orange 49%, orange 49%, green 49%, green 51%);  
}
```

```
.element {  
  background-image: linear-gradient(to bottom, orange 49%, green 49%, orange 51%, green 51%);  
}
```



Gradients



```
.radial .box2 {  
  background: radial-gradient(green 0%,  
    green 50%, orange 50%, orange 100%);  
}  
  
.radial .box3 {  
  width: 30vmin;  
  height: 30vmin;  
  background: radial-gradient(circle at  
    bottom right, green 0%, green 37.5%,  
    orange 37.5%, orange 100%);  
}
```



Box shadow

Multiple box shadows are a thing

```
box-shadow: [horizontal offset] [vertical offset] [blur radius] [
```

Make use of the offsets for positioning, and the blur radius for sizing





```
.shadow .box {  
  border-radius: 50%;  
  height: 1px;  
  width: 1px;  
  box-shadow: -6em    0 0 0.5em #fed650,  
              -4em    0 0 0.5em #fed650,  
              -2em    0 0 0.5em #fed650,  
               0      0 0 0.5em green,  
               4em    0 0 0.5em #fed650,  
              -6em  2em 0 0.5em #fed650,  
              -4em  2em 0 0.5em #fed650,  
}
```



Text shadow

Similar to box shadows but is added to text instead.

```
text-shadow: [horizontal offset] [vertical offset] [optional blur]
```

Say equilateral quadrilateral really fast 🚀

Say equilateral quadrilateral really fast 🚀

Say equilateral quadrilateral really fast 🚀

```
.shadow .text {  
  text-shadow: 1em 2em 0 white,  
              -1em -2em 0 white;  
}
```



Putting some of it together

It's Malaysia's 62nd birthday today.

**Henry Lim** 
@henrylim96

Happy birthday, Malaysia! 🇲🇾🎂🎉

To celebrate this big day, I have decided to create the Malaysia flag using HTML and CSS (only!)
dev.to/henrylim96/how...
#merdeka @ThePracticalDev #DEVCommunity



1:00 pm · 30 Aug 2019 · TweetDeck

2 Retweets · 11 Likes

**Chee Aun** 
@cheeaun · 2h

Replying to @henrylim96 and @ThePracticalDev
👍 9 years ago



[cheeaun/malaysia-flag-css](https://github.com/cheeaun/malaysia-flag-css)
Pure CSS Malaysia Flag. Contribute to cheeaun/malaysia-flag-css development by creatin...
github.com

**Henry Lim** 
@henrylim96 · 2h

wahhhhhhhhhh 🇲🇾🇲🇾🇲🇾🇲🇾🇲🇾🇲🇾🇲🇾🇲🇾🇲🇾🇲🇾

1 1

**Chee Aun** 
@cheeaun · 1h

I think @hj_chen also got do one before?

1 1

**Henry Lim** 
@henrylim96 · 1h

Which means Malaysian web dev must do something like this? 🤔🤔🤔

1 2

**HJ Chen** 
@hj_chen · 6m

nak cinta negaraku ❤️



Jalur Gemilang
The national flag of Malaysia, scaled to official specifications and fully responsive. I was a bit disappointed I couldn't do this with a single di...
codepen.io

1 1

**Chee Aun** 
@cheeaun · 4m

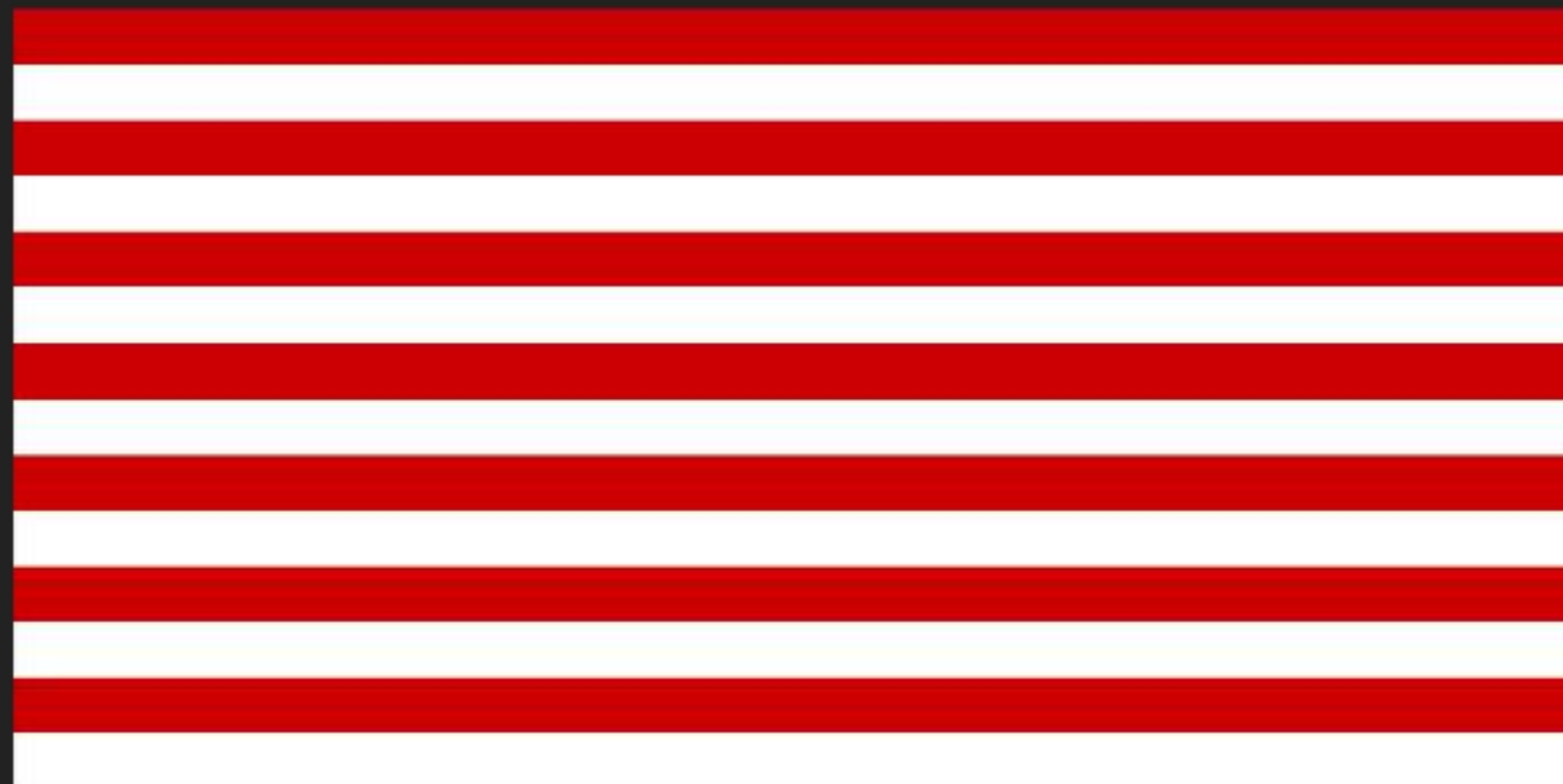
2017 🌟

1 1

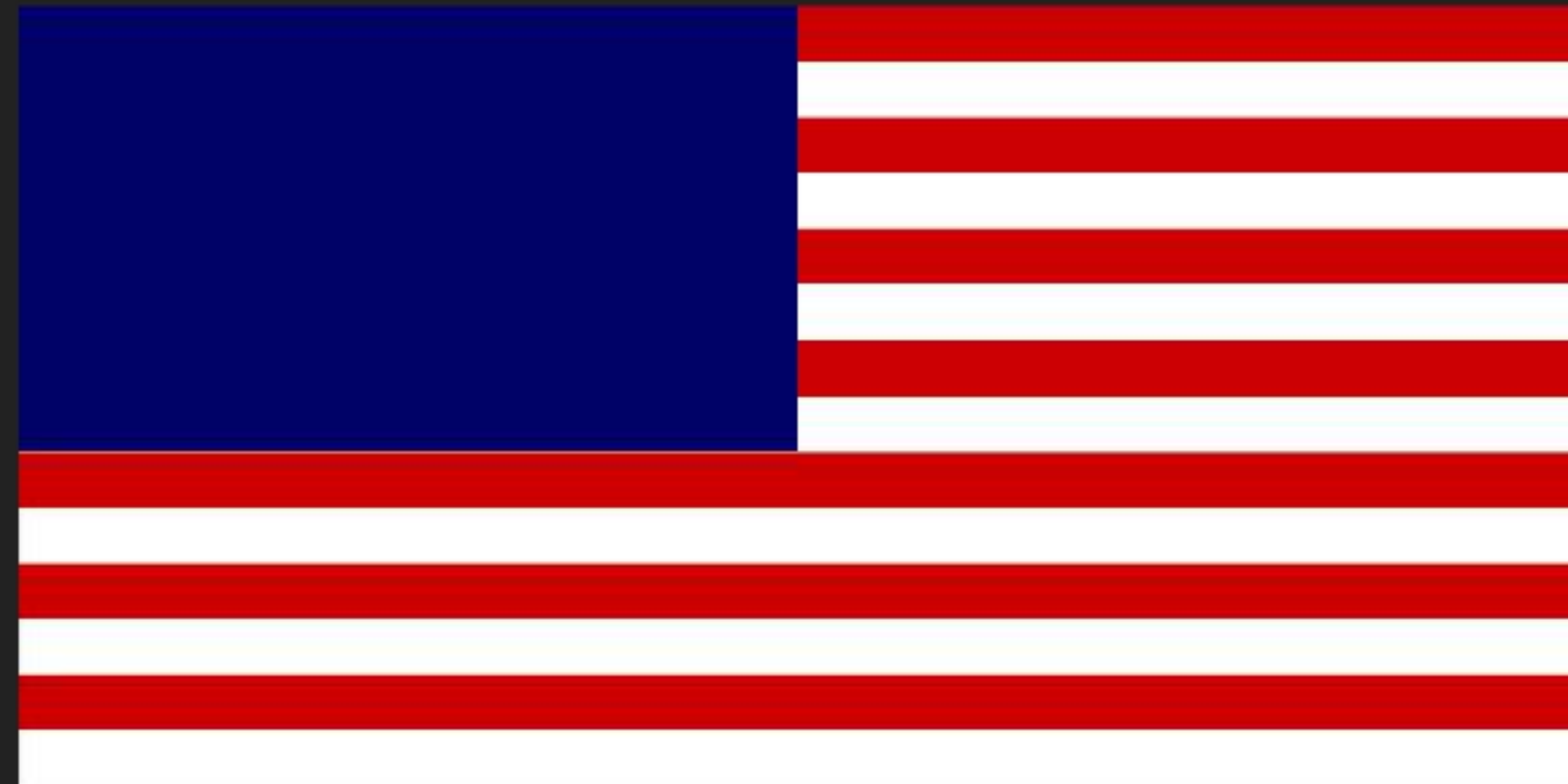
**HJ Chen** 
@hj_chen · 1m

ya la...every malaysian web dev need to do the 14-point star...hahahahaha

1 1

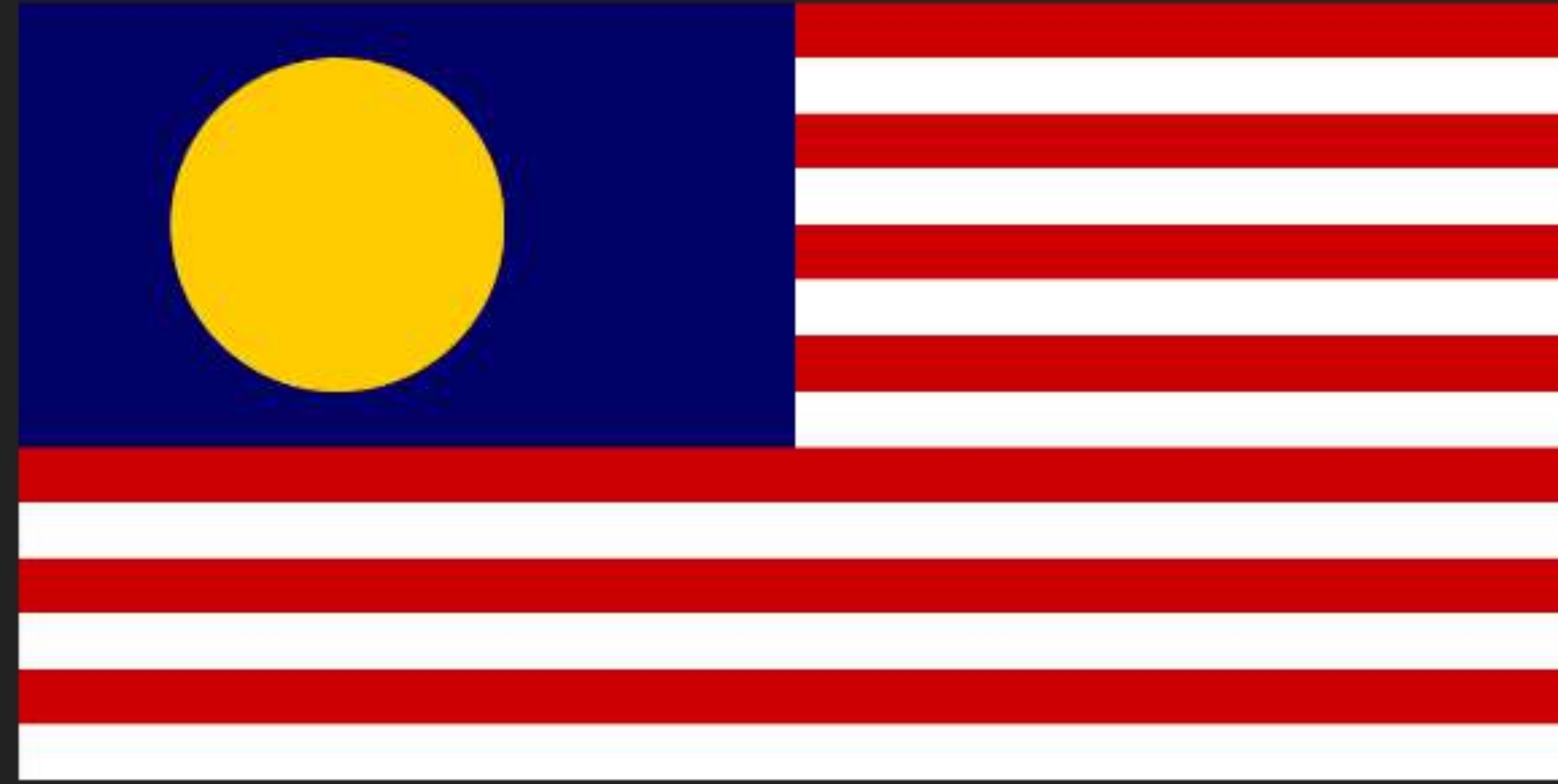


```
.jalur-gemilang {  
  width: 15em;  
  height: 7.5em;  
  position: relative;  
  background-image: linear-gradient(  
    to bottom,  
    #cc0001 0%, #cc0001 calc(100% / 14),  
    #fff calc(100% / 14), #fff calc(100% / 14 * 2),  
    #cc0001 calc(100% / 14 * 2), #cc0001 calc(100% / 14 *  
    #fff calc(100% / 14 * 3), #fff calc(100% / 14 * 4),  
    #cc0001 calc(100% / 14 * 4), #cc0001 calc(100% / 14 *  
    #fff calc(100% / 14 * 5), #fff calc(100% / 14 * 6),  
    #cc0001 calc(100% / 14 * 6), #cc0001 calc(100% / 14 *  
    #fff calc(100% / 14 * 7), #fff calc(100% / 14 * 8),  
    #cc0001 calc(100% / 14 * 8), #cc0001 calc(100% / 14 *  
    #fff calc(100% / 14 * 9), #fff calc(100% / 14 * 10),  
    #cc0001 calc(100% / 14 * 10), #cc0001 calc(100% / 14 *  
    #fff calc(100% / 14 * 11), #fff calc(100% / 14 * 12),  
    #cc0001 calc(100% / 14 * 12), #cc0001 calc(100% / 14 *  
    #fff calc(100% / 14 * 13), #fff calc(100% / 14 * 14)  
  );  
}
```

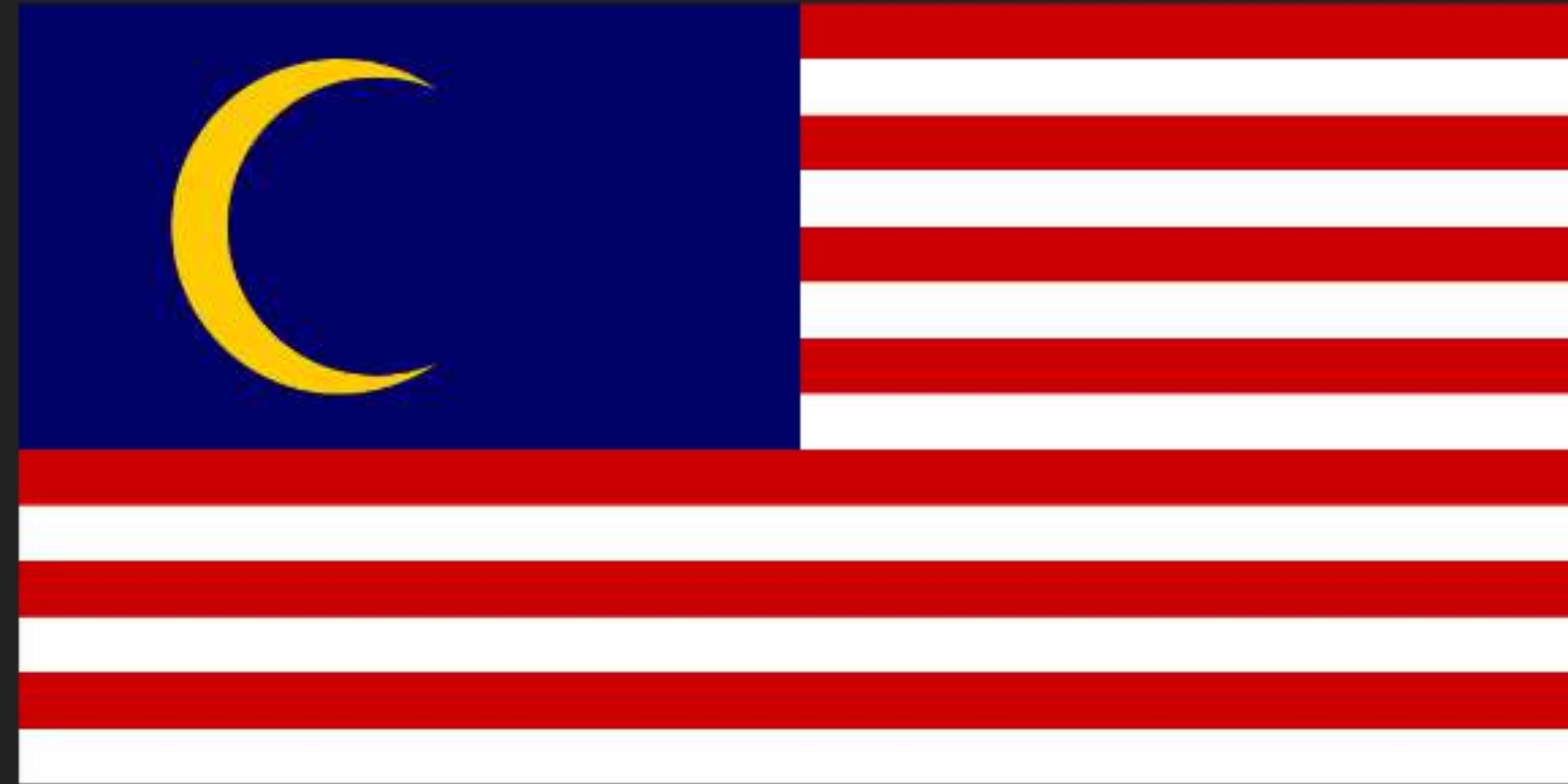
```
.jalur-gemilang::before {  
  content: "";  
  display: block;  
  height: calc(7.5em / 14 * 8);  
  width: 7.5em;  
  background-color: #010066;  
  position: absolute;  
}
```





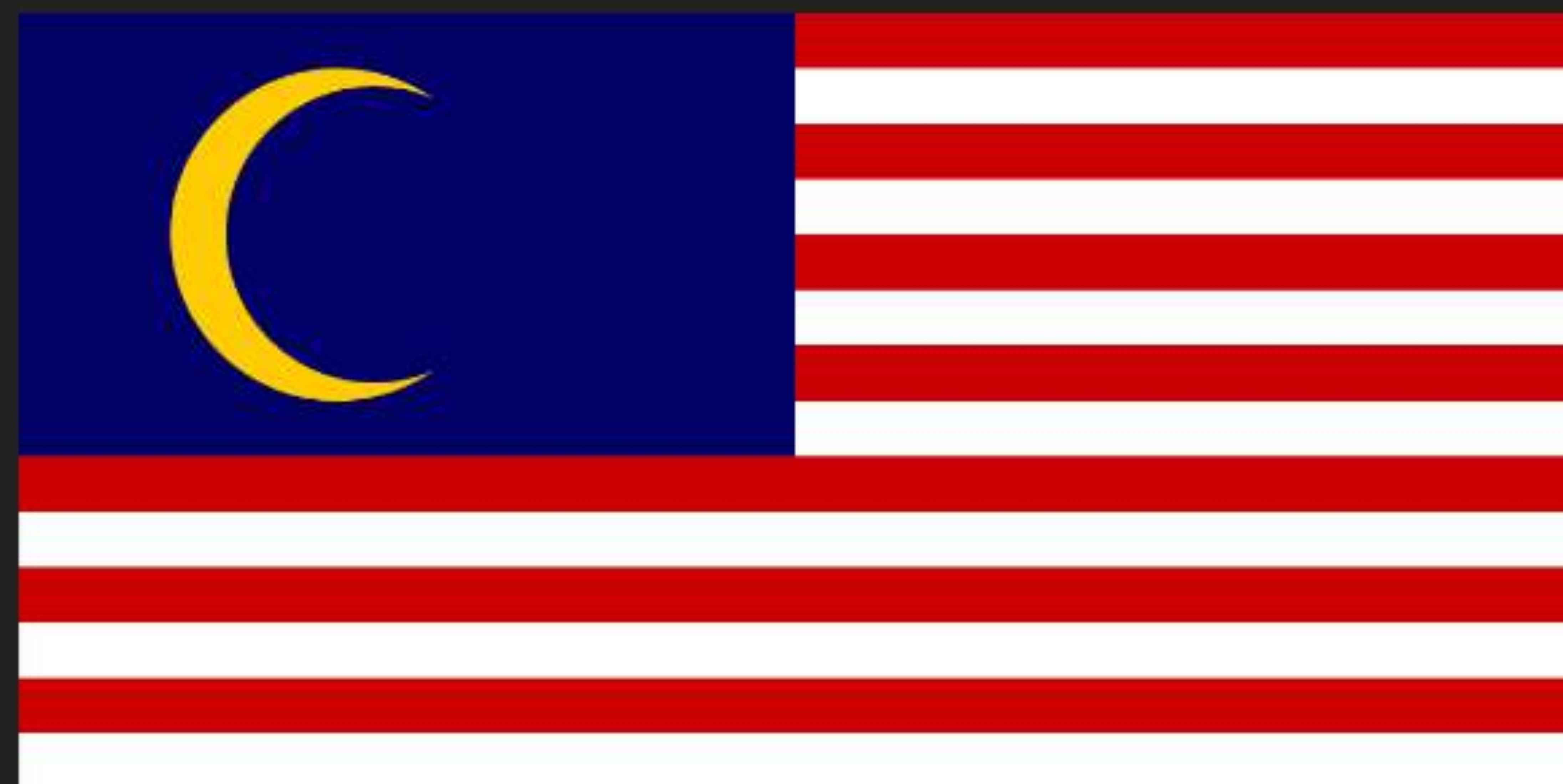
```
.jalur-gemilang::after {  
  content: "";  
  display: block;  
  width: calc(7.5em / 14 * 6);  
  height: calc(7.5em / 14 * 6);  
  background-color: #ffcc00;  
  position: absolute;  
  top: calc(7.5em / 14);  
  left: calc(7.5em / 14 * (11 / 4));  
  border-radius: 50%;  
}
```





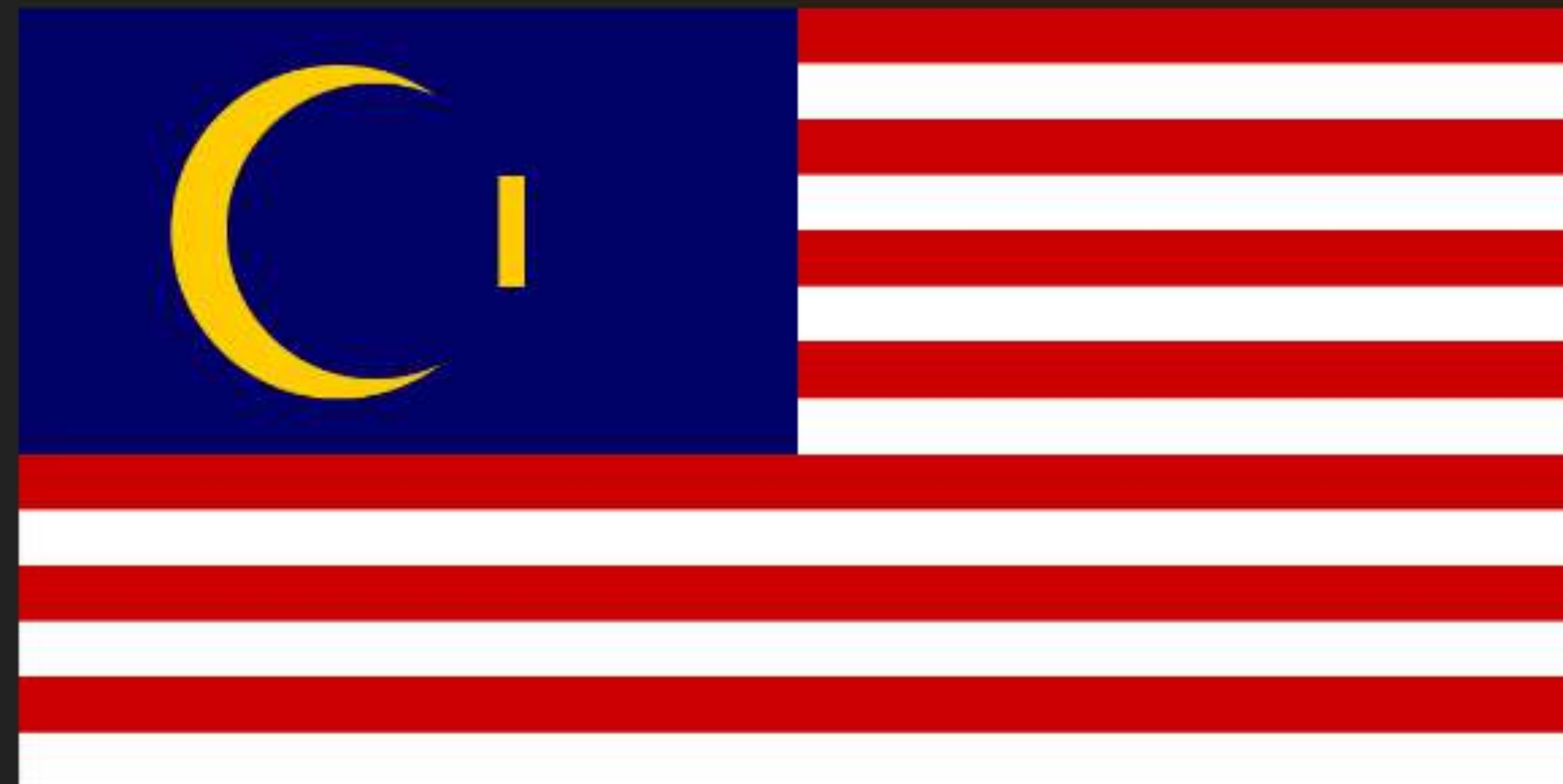
```
.bulan {  
  width: calc(7.5em / 14 * (16 / 3));  
  height: calc(7.5em / 14 * (16 / 3));  
  background-color: #010066;  
  position: absolute;  
  top: calc(7.5em / 14 * (4 / 3));  
  left: calc(7.5em / 14 * (15 / 4));  
  border-radius: 50%;  
  z-index: 2;  
}
```





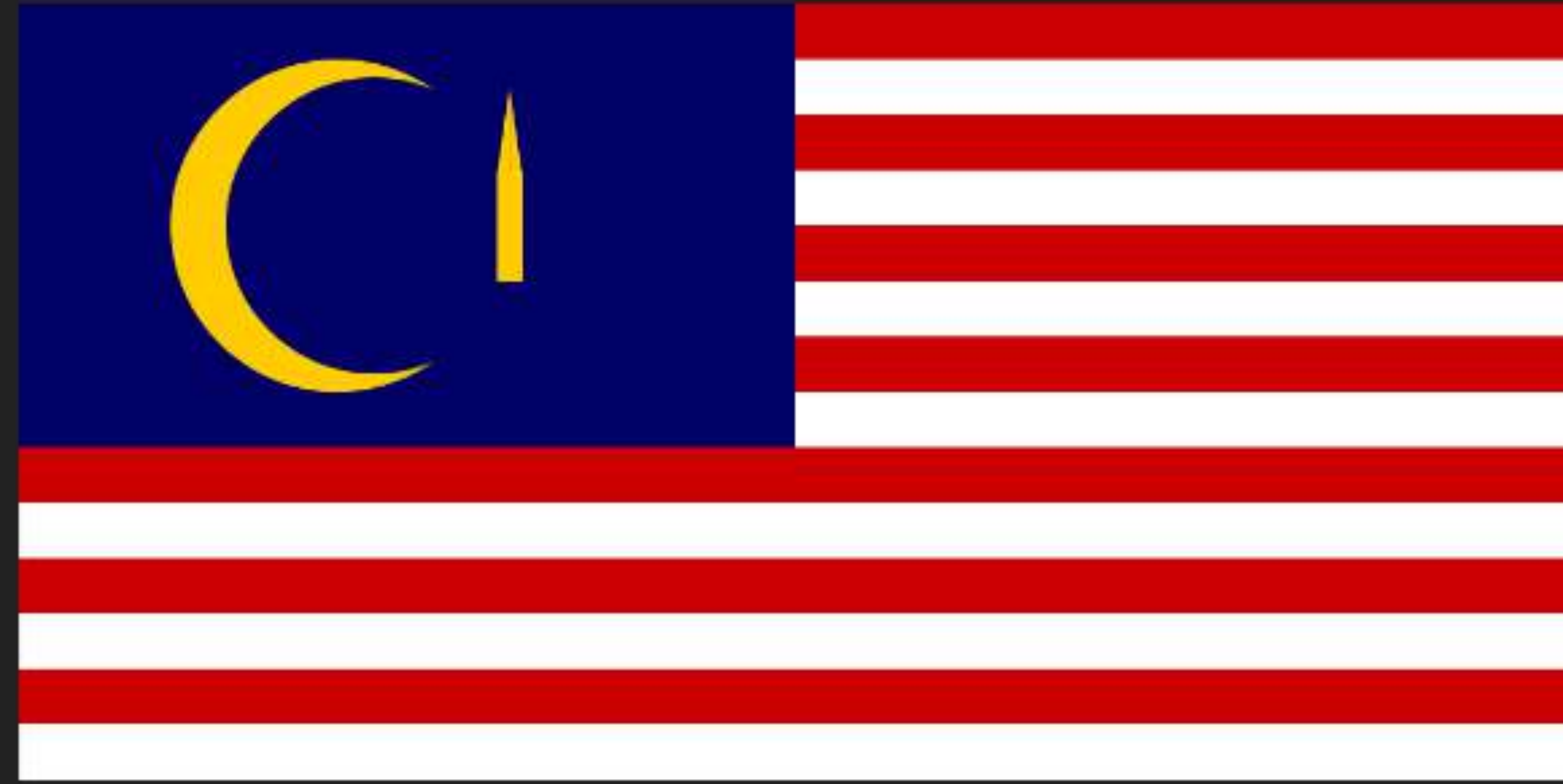
```
.bintang {  
  position: absolute;  
  top: calc(7.5em / 14 * 3);  
  left: calc(7.5em / 14 * (31 / 4));  
  z-index: 2;  
}
```





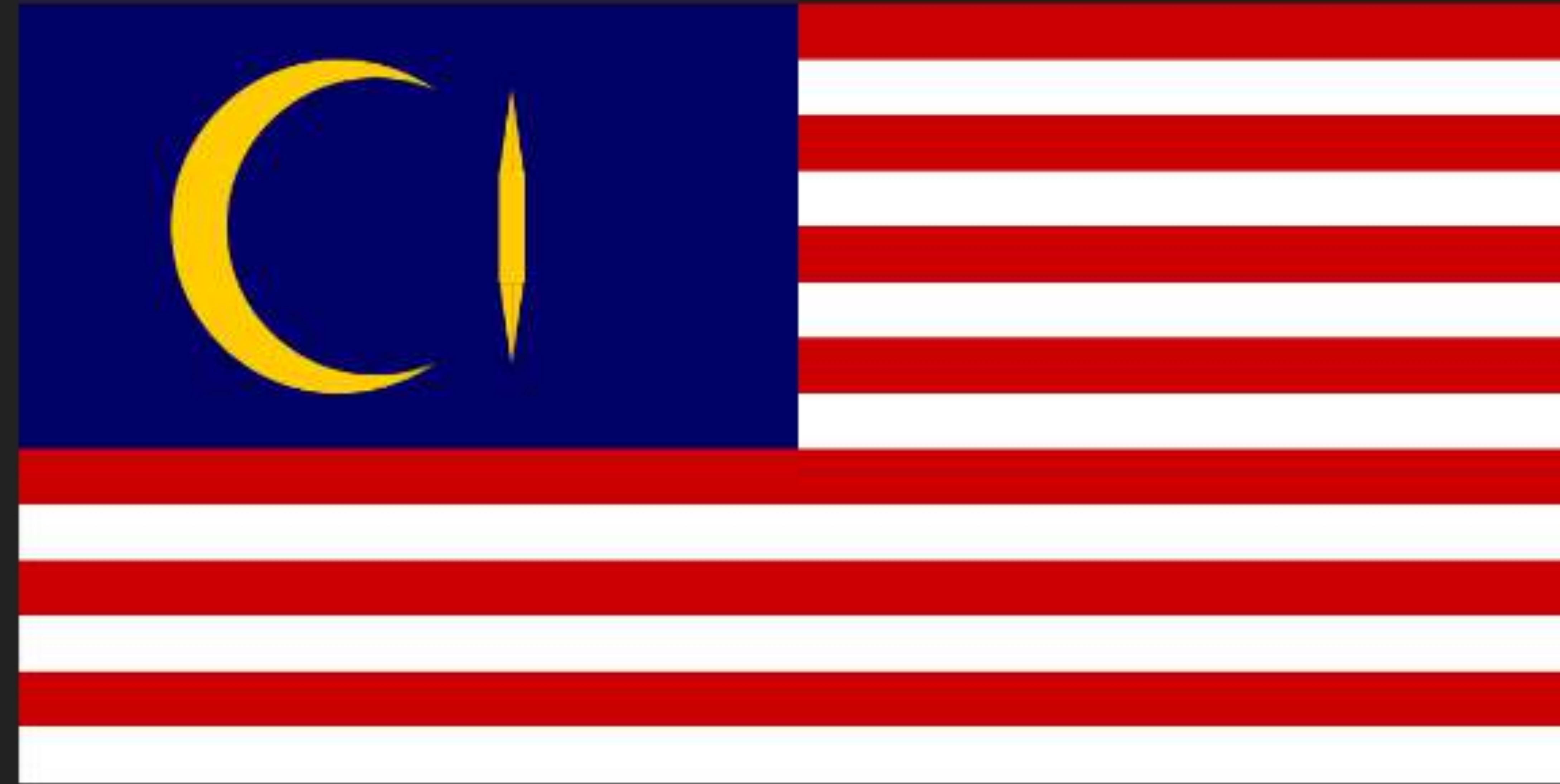
```
.segi {  
  width: calc(7.5em / 14 * (3.14159 / 7));  
  height: calc(7.5em / 7);  
  background: #ffcc00;  
  position: absolute;  
  left: calc(7.5em / 14 - ((7.5em / 14 * (3.14159 / 14))) / 2);  
}
```





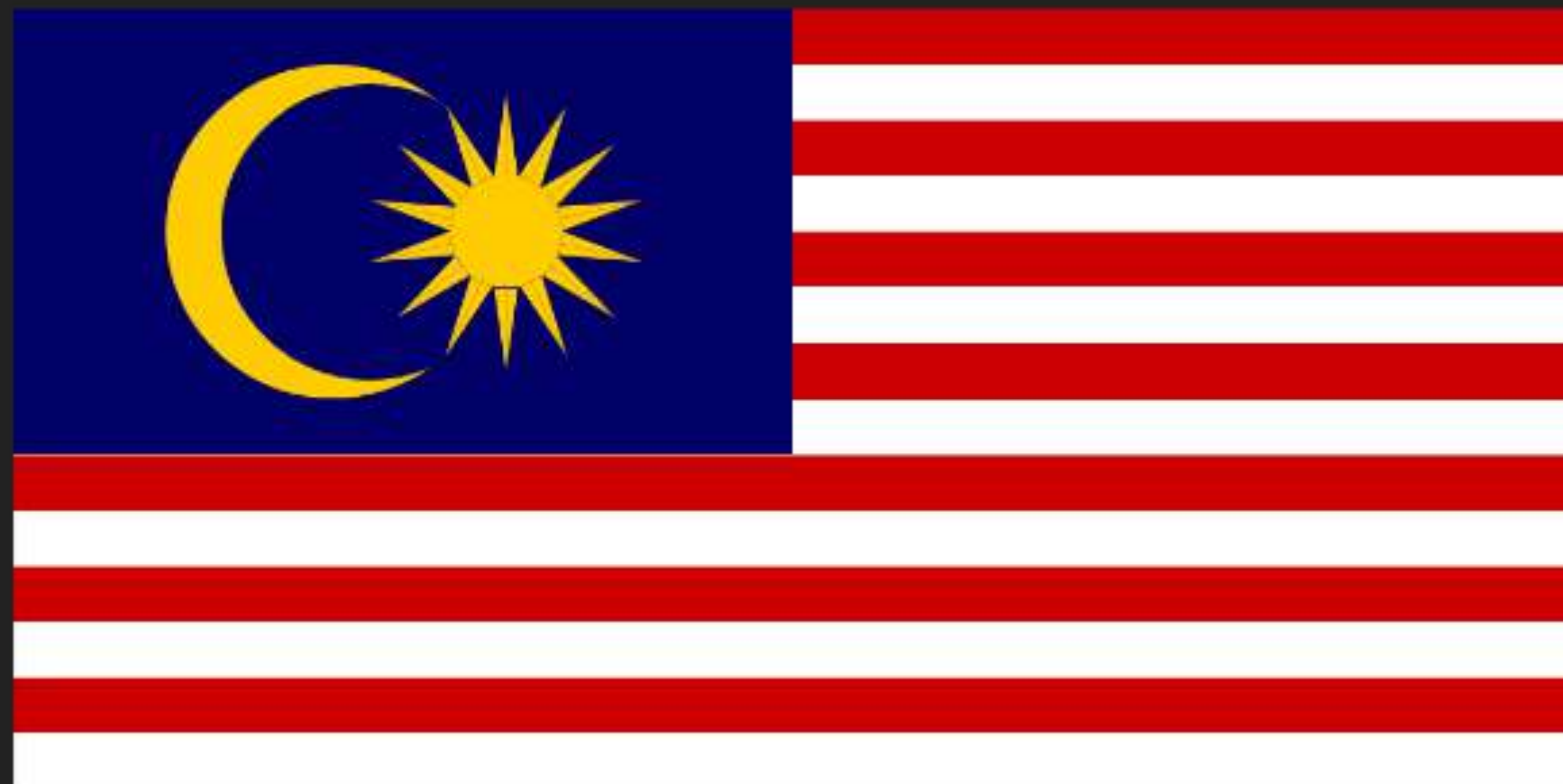
```
.segi::before {  
  content: '';  
  display: block;  
  border-bottom: calc(7.5em / 14 * (3 / 2)) solid #ffcc00;  
  border-left: calc(7.5em / 14 * (3.14159 / 14)) solid transparent;  
  border-right: calc(7.5em / 14 * (3.14159 / 14)) solid transparent;  
  position: absolute;  
  top: calc(-7.5em / 14 * (3 / 2));  
}
```





```
.segi::after {  
  content: '';  
  display: block;  
  border-top: calc(7.5em / 14 * (3 / 2)) solid #ffcc00;  
  border-left: calc(7.5em / 14 * (3.142 / 14)) solid transparent;  
  border-right: calc(7.5em / 14 * (3.142 / 14)) solid transparent;  
  position: absolute;  
  bottom: calc(-7.5em / 14 * (3 / 2));  
}
```

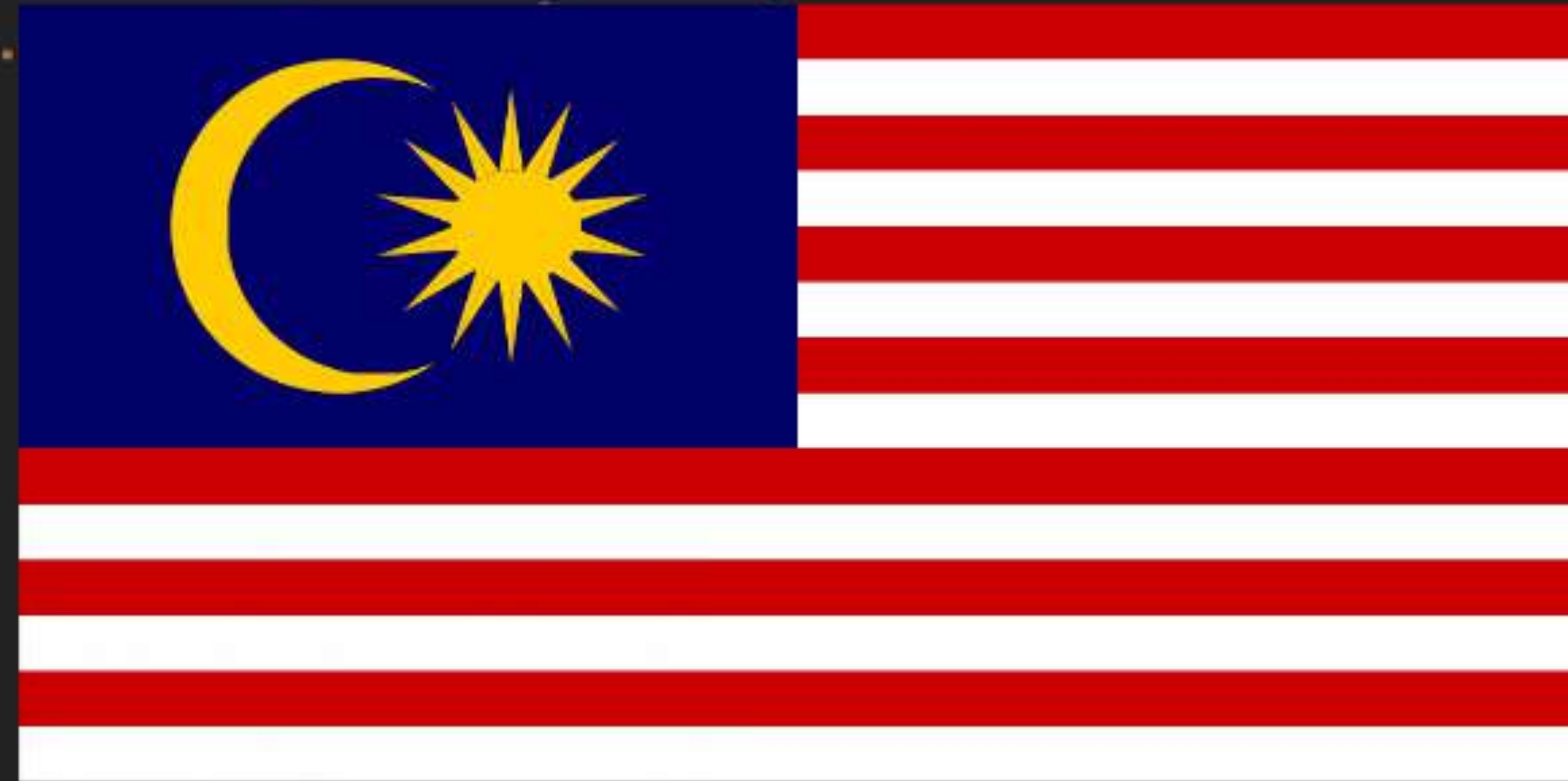




```
.segi:nth-child(2) {  
  transform: rotate(calc(360deg / 14));  
}  
  
.segi:nth-child(3) {  
  transform: rotate(calc((360deg / 14) * 2));  
}  
  
.segi:nth-child(4) {  
  transform: rotate(calc((360deg / 14) * 3));  
}  
  
.segi:nth-child(5) {
```


Jalur Gemilang

Happy 62nd birthday, Malaysia!



Cinta negaraku ❤️



A single div Singapore flag



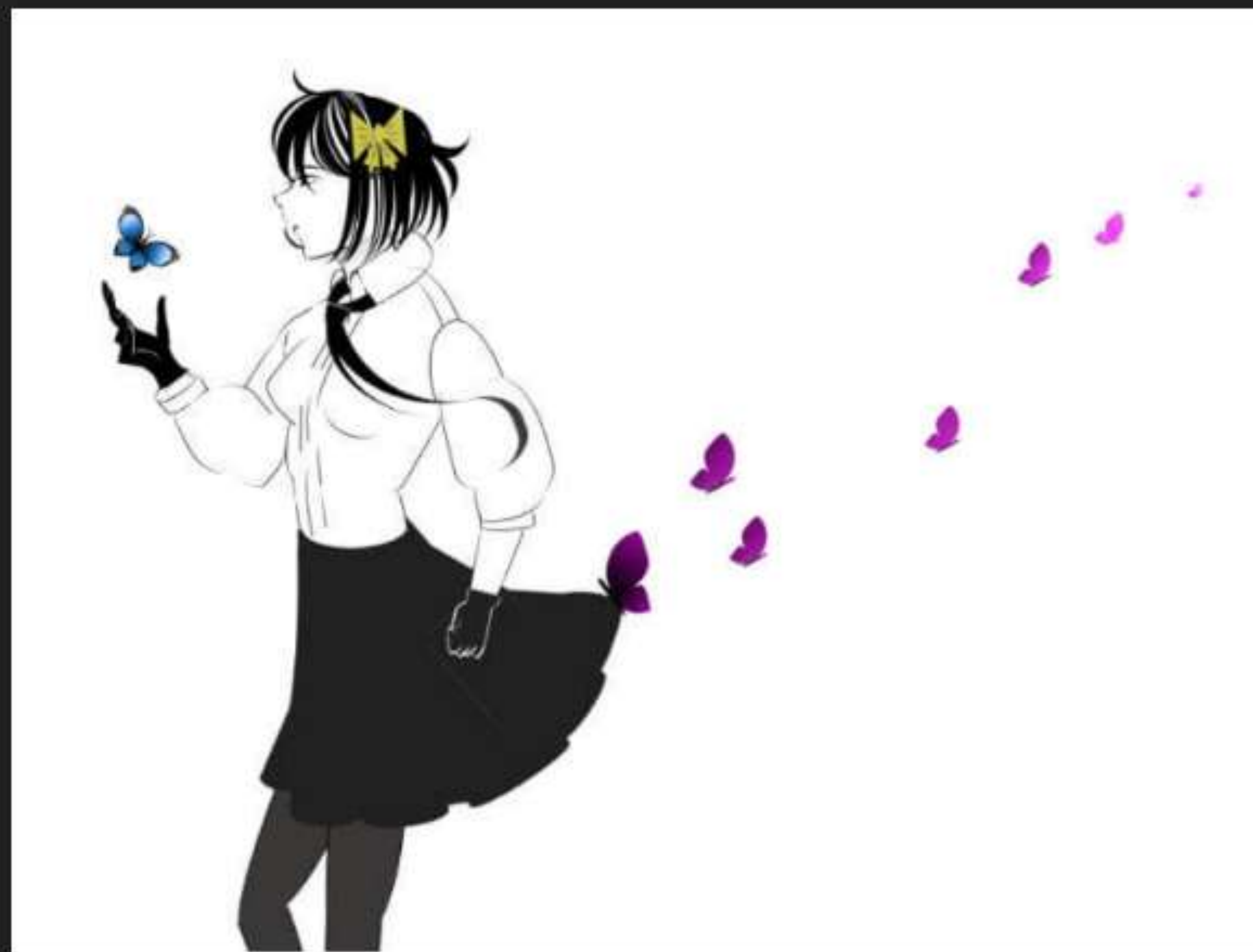
```
.flag {  
  height: 36vmin;  
  width: 54vmin;  
  background-image: radial-  
gradient(circle at 25% 24%, #ed2939  
12.7%, transparent 12.8%), radial-  
gradient(circle at 20% 24%, #fff 12.7%,  
transparent 12.8%), linear-  
gradient(180deg, #ed2939 0, #ed2939  
50%, #fff 50%, #fff 100%);  
  position: relative;
```



Some inspiration for you...



<https://codepen.io/SmokinClove/pen/zYOoVJe>



<https://codepen.io/SmokinClove/pen/VoEbME>

By Nguyen Tuong Van





Interactive Nintendo GameBoy (Only CSS3 + JS sound) by Manz (@manz)



Pure CSS Only Portrait - Isla
A PEN BY Ben Evans



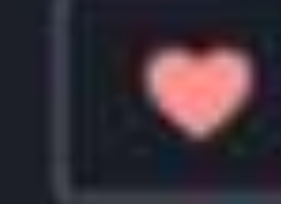
Fork

Change View



Pure CSS Only Portrait - Isla by Ben Evans (@ivorjetski)





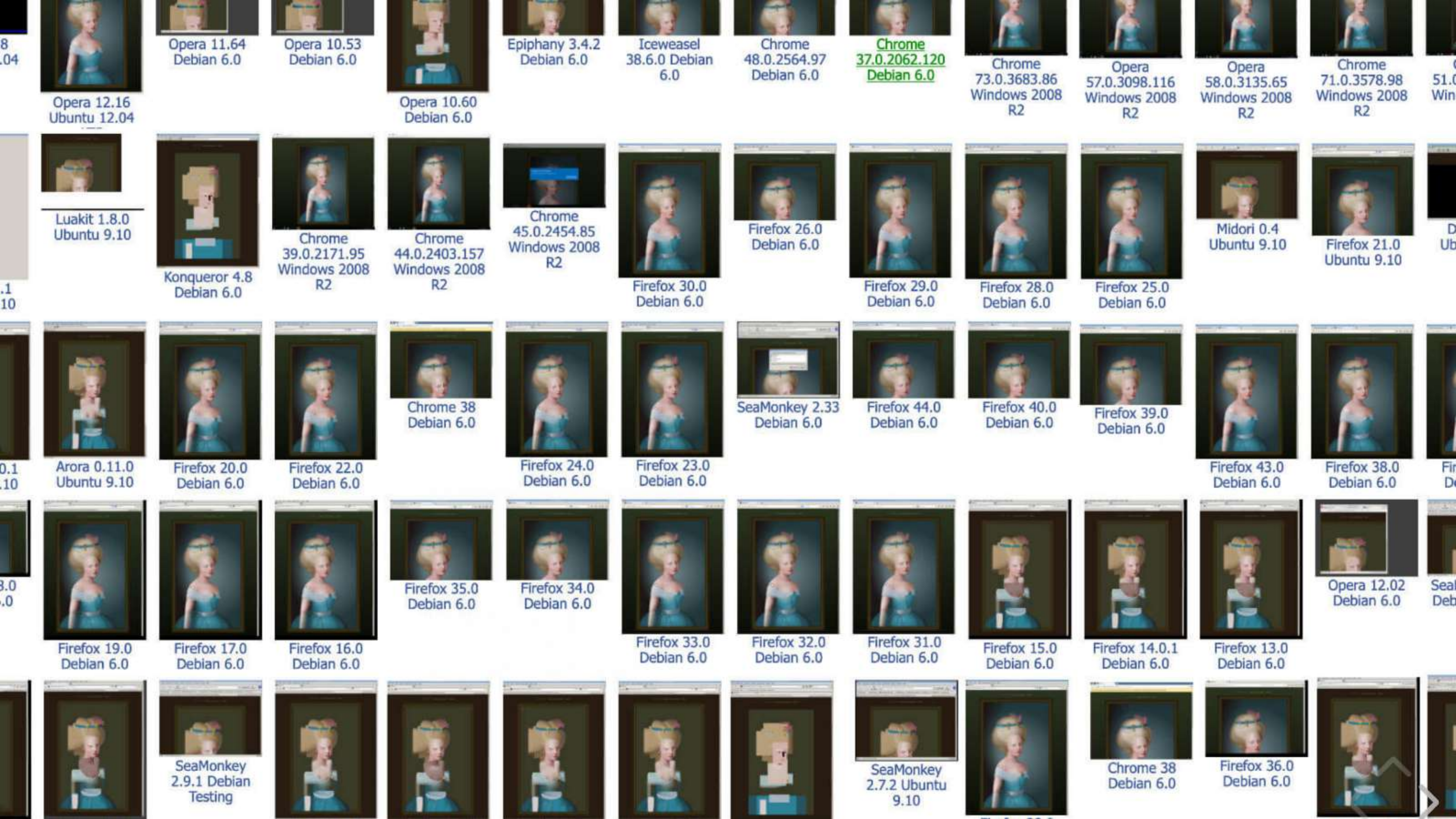
Pure CSS Still Life - Water and Lemons by Ben Evans (@ivorjetski)





<http://diana-adrienne.com/purecss-francine/> by Diana Smith





“ Useless is not worthless.

—Charlie Gerard

”

Related links

- [MDN web docs](#)
- [CSS Backgrounds and Borders Module Level 3](#)
- [A Single Div: a CSS drawing project by Lynn Fisher](#)
- [Single Div Drawings with CSS](#)
- [CSSDay Talk: Illustration with CSS](#)
- [The Anatomy of a Pure CSS Heart ♥](#)
- [How to Create Malaysia Flag with HTML and CSS 🇲🇾](#)
- [Send Help! I'm obsessed with CSS Art!](#)
- [This Stunning Image Made With Pure Code Is Like a Mood Ring For Your Browser](#)

Thank you!



<https://www.chenhuijing.com>



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Header font is Rakkas by Zeynep Akay
Body font is Vollkorn by Friedrich Althausen

