CSS GRID

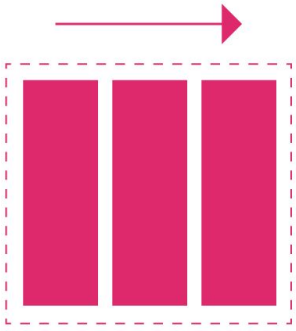
DEV.F::
DESARROLLAMOS(PERSONAS);

Flexbox vs CSS Grid

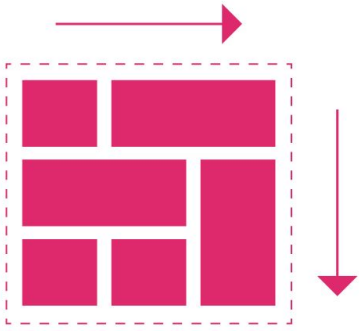
Uno de los procesos más problemáticos de CSS, es el proceso de colocar y distribuir los elementos a lo largo de una página.

El sistema **flexbox** está orientado a estructuras de una sola dimensión.

Grid CSS permite crear rápidamente cuadrículas sencillas y potentes.

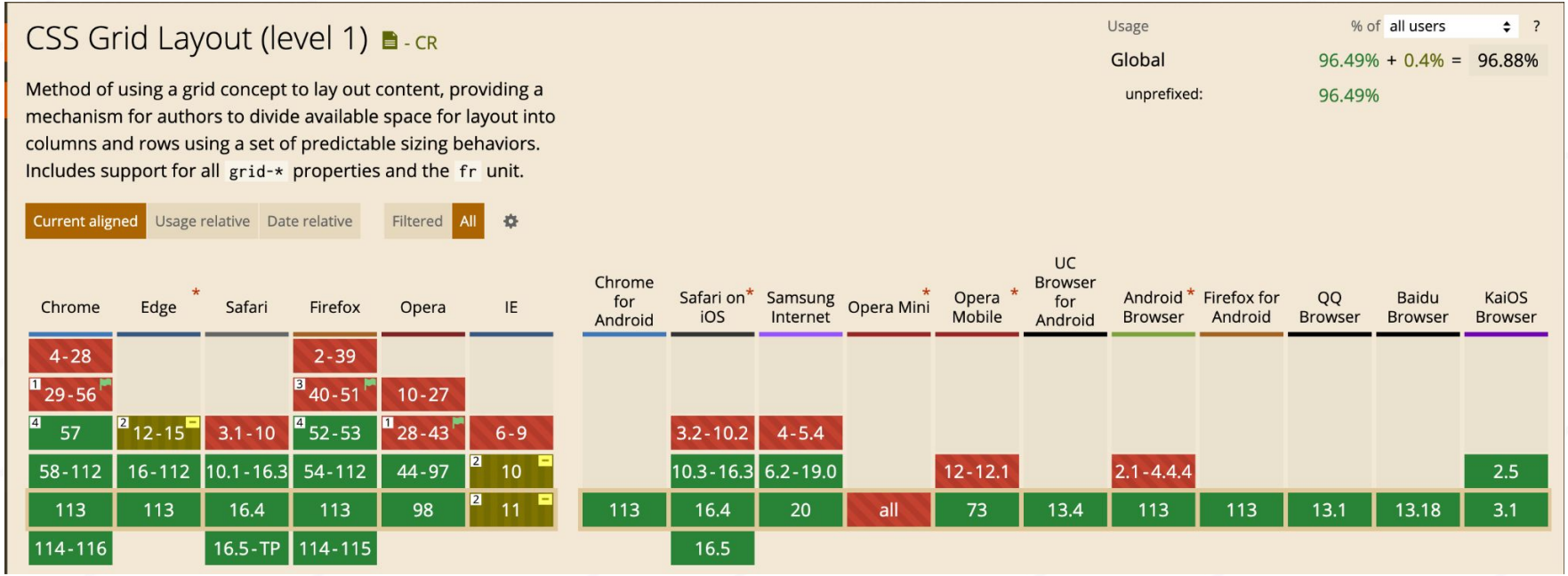


FLEXBOX
una dimensión



CSS GRID
dos dimensiones

Compatibilidad de CSS Grid



CSS Grid Layout (level 1) - CR

Method of using a grid concept to lay out content, providing a mechanism for authors to divide available space for layout into columns and rows using a set of predictable sizing behaviors. Includes support for all `grid-*` properties and the `fr` unit.

Usage: % of all users ?

Global: 96.49% + 0.4% = 96.88%

unprefixed: 96.49%

Current aligned | Usage relative | Date relative | Filtered | All

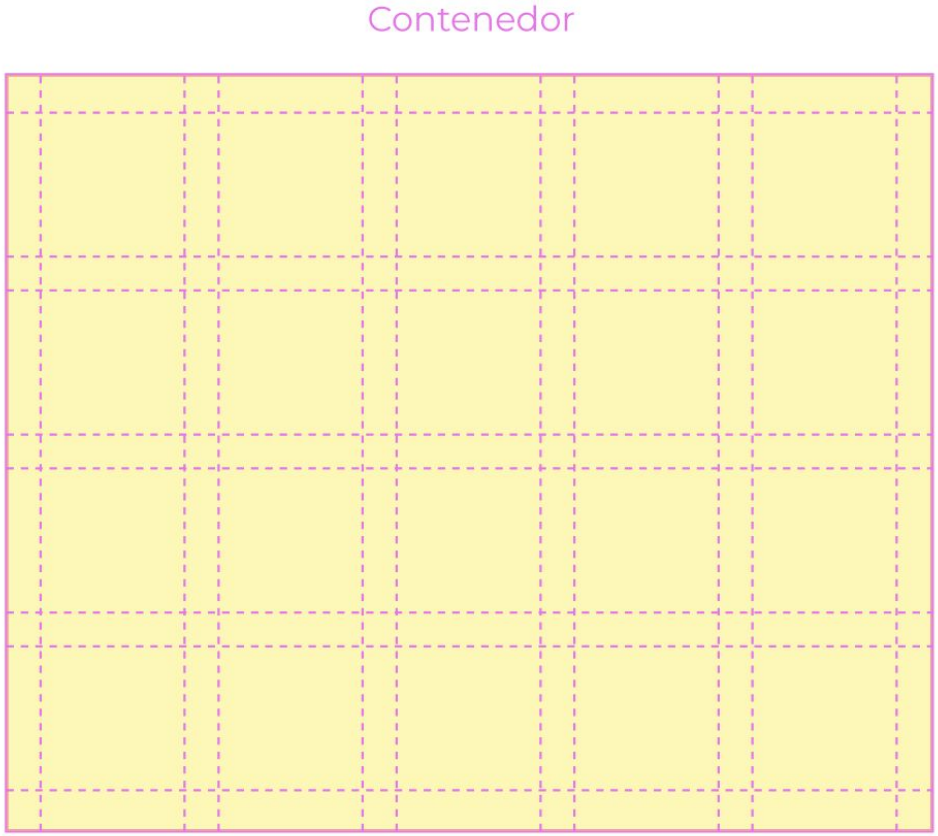
Chrome	Edge *	Safari	Firefox	Opera	IE
4-28			2-39		
1 29-56			3 40-51	10-27	
4 57	2 12-15	3.1-10	4 52-53	1 28-43	6-9
58-112	16-112	10.1-16.3	54-112	44-97	2 10
113	113	16.4	113	98	2 11
114-116		16.5-TP	114-115		

Chrome for Android	Safari on iOS *	Samsung Internet	Opera Mini *	Opera Mobile *	UC Browser for Android	Android Browser *	Firefox for Android	QQ Browser	Baidu Browser	KaiOS Browser
	3.2-10.2	4-5.4								
	10.3-16.3	6.2-19.0		12-12.1		2.1-4.4.4				2.5
113	16.4	20	all	73	13.4	113	113	13.1	13.18	3.1
	16.5									

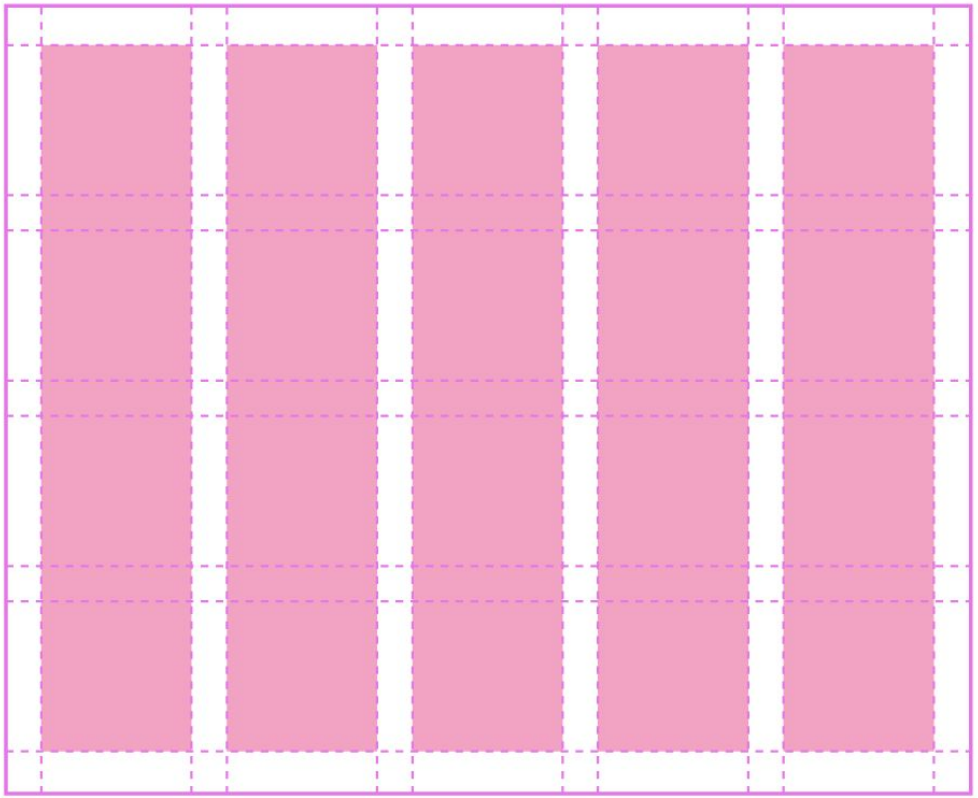
https://caniuse.com/

DEV.F

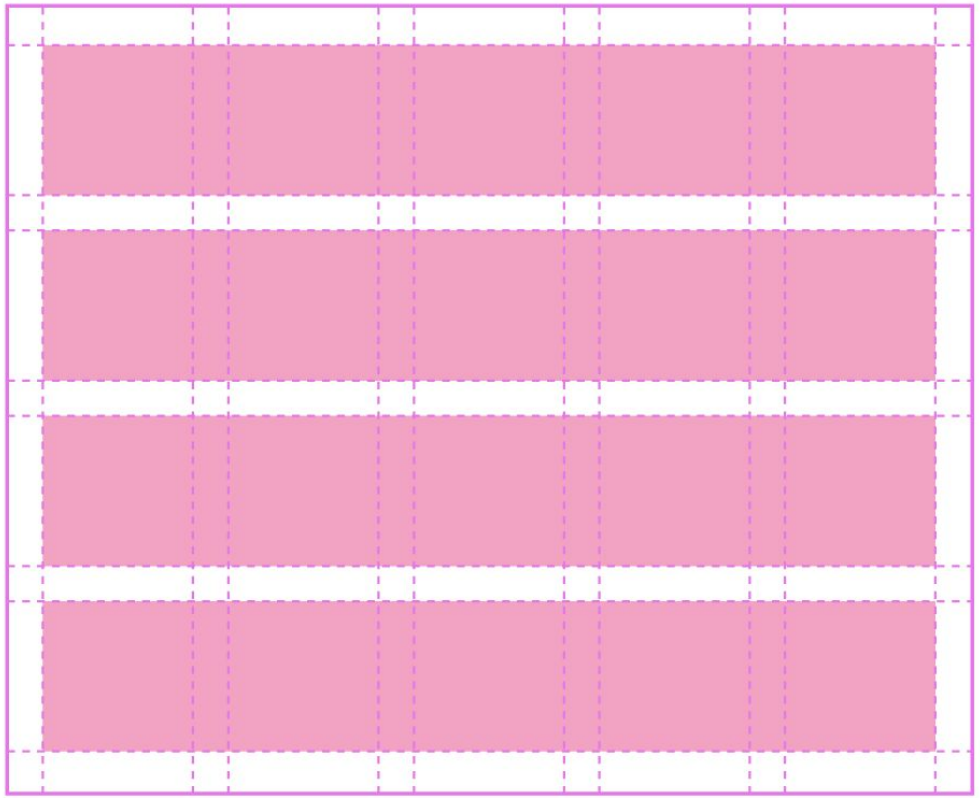
Contenedor Grid | Grid Container



Columnas



Filas



Conceptos básicos

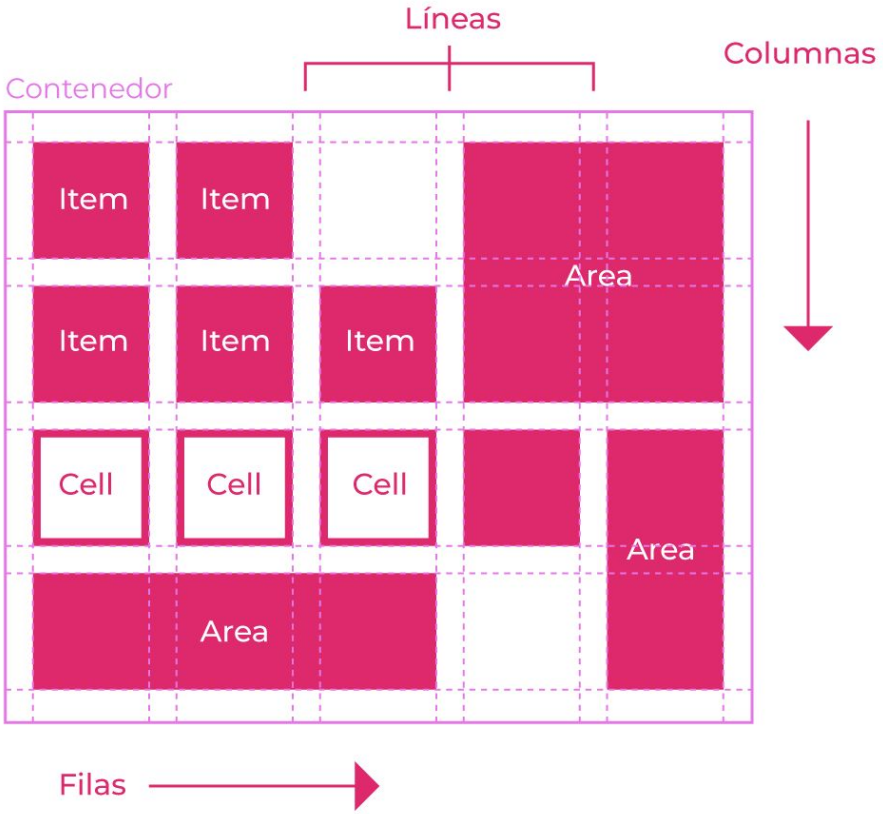
Contenedor: Elemento padre que es el contenedor que definirá la cuadrícula o rejilla.

Ítem: Los hijos que contiene la cuadrícula.

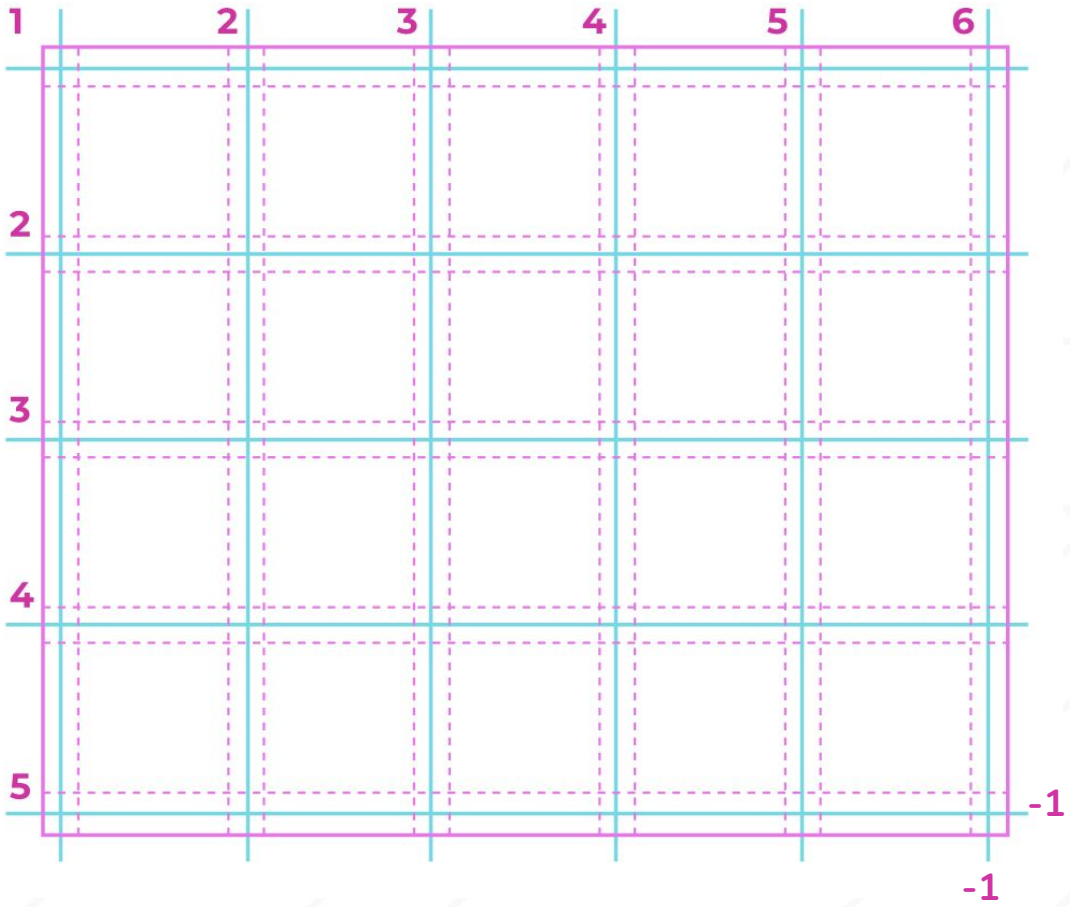
Celda (grid cell): Cada uno de los cuadritos (unidad mínima) de la cuadrícula.

Area (grid area): Conjunto de celdas.

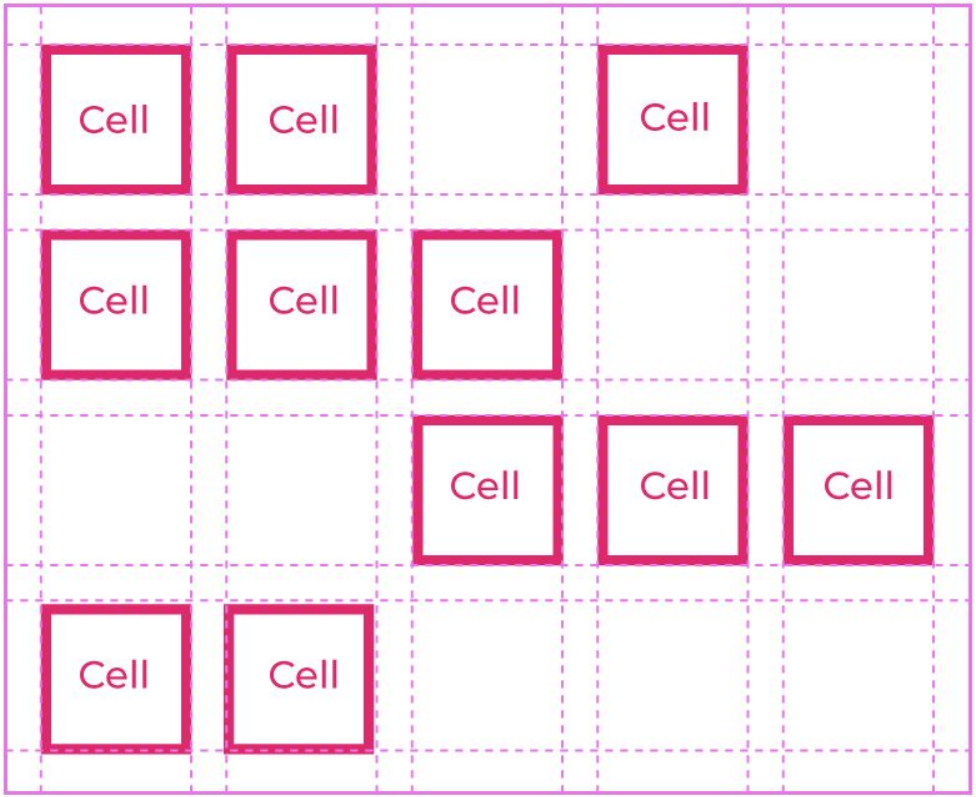
Línea (grid line): Separador horizontal o vertical de las celdas de la cuadrícula.



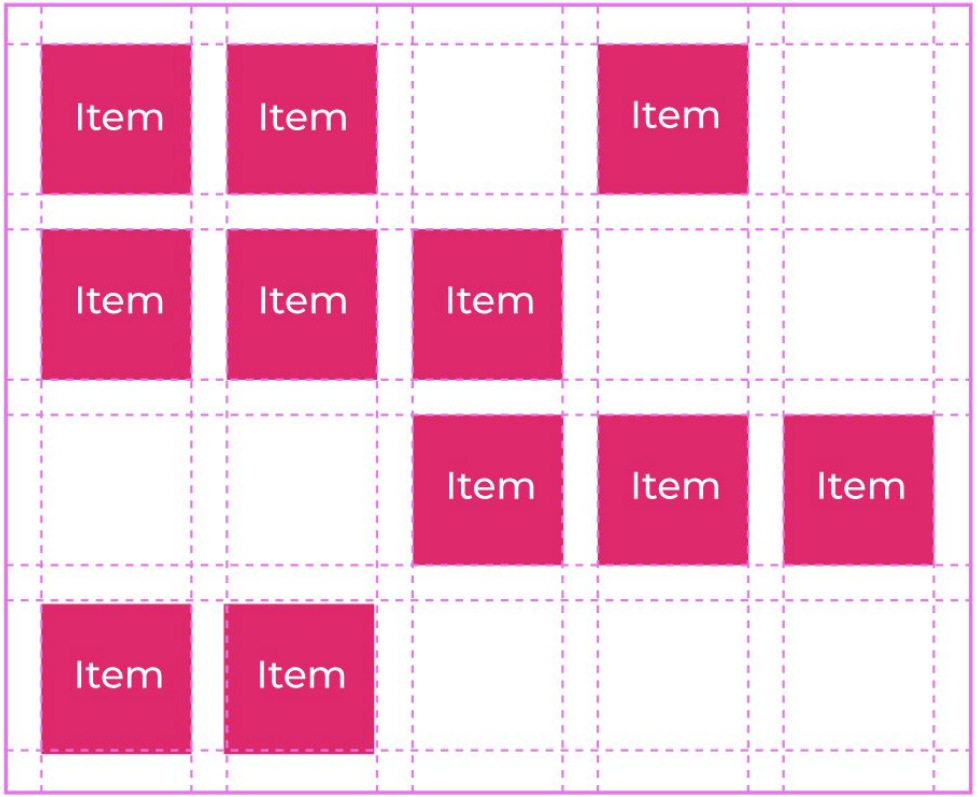
Líneas



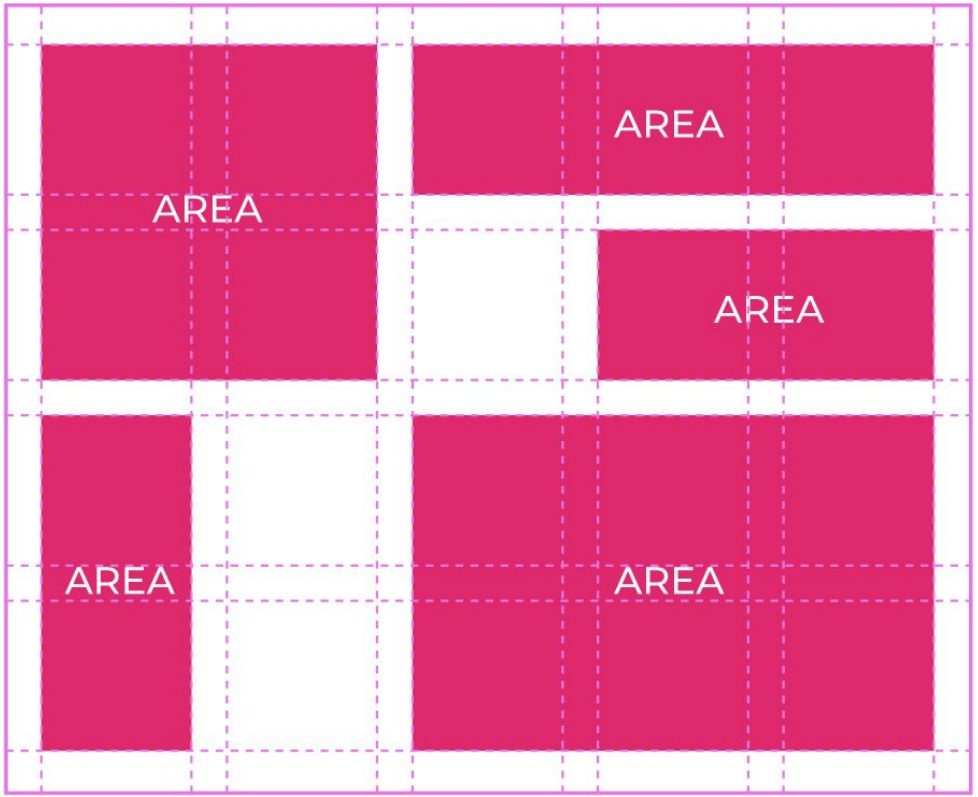
Celdas



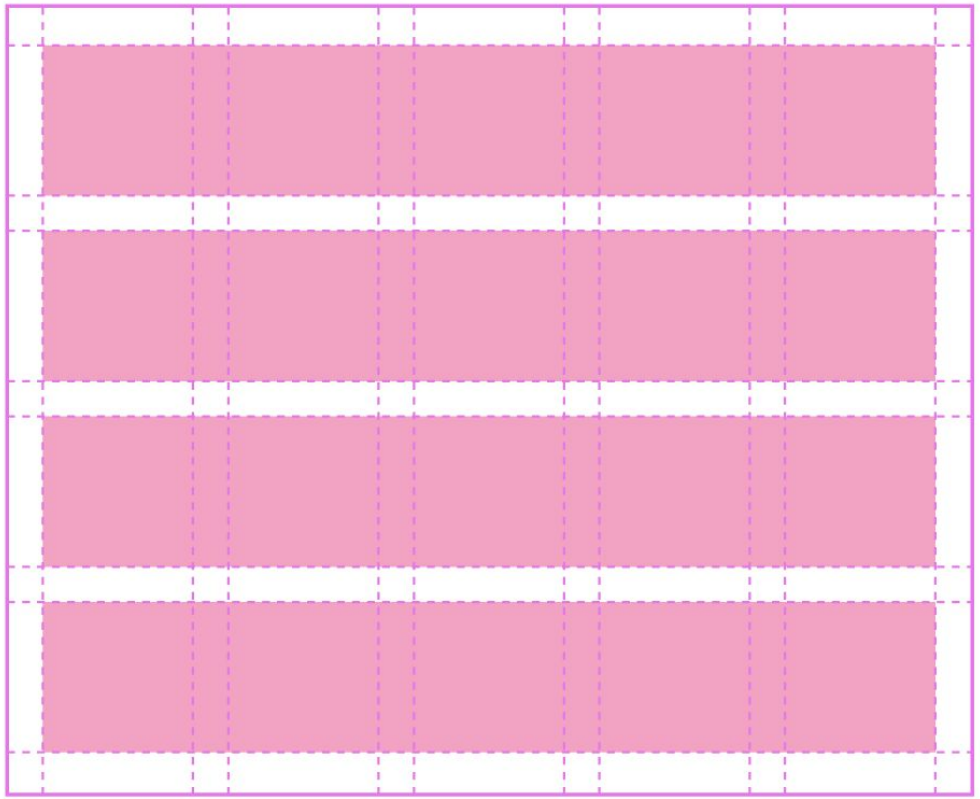
Items



Area



Grid Track



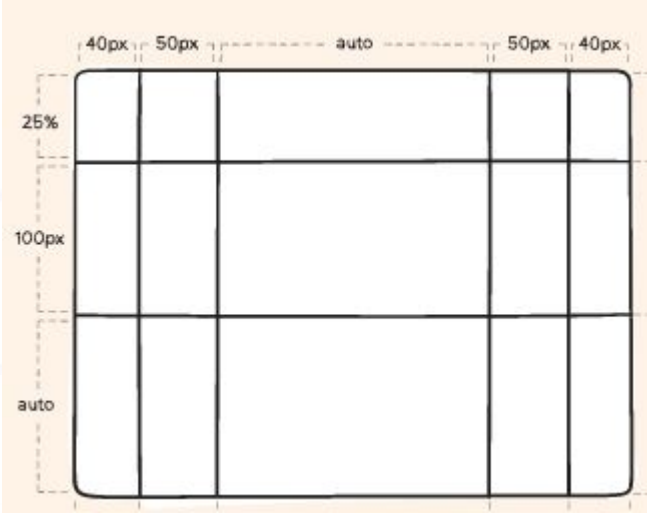
Propiedades para el padre (Grid Container)

```html
<div class="container">
    <div class="item1"></div>
    <div class="item2"></div>
    <div class="item3"></div>
    <div class="item4"></div>
    <div class="item5"></div>
    <div class="item6"></div>
    <div class="item7"></div>
</div>
```

```css
.container {
  display: grid | inline-grid;
}
```

- **grid** – Genera un cuadricula a nivel de bloque
- **inline-grid** – Genera una cuadrícula a nivel de línea.

```css
.container {
  grid-template-columns: ...  ...;
  /* e.g.
      1fr 1fr
      minmax(10px, 1fr) 3fr
      repeat(5, 1fr)
      50px auto 100px 1fr
  */
  grid-template-rows: ... ...;
  /* e.g.
      min-content 1fr min-content
      100px 1fr max-content
  */
}
```

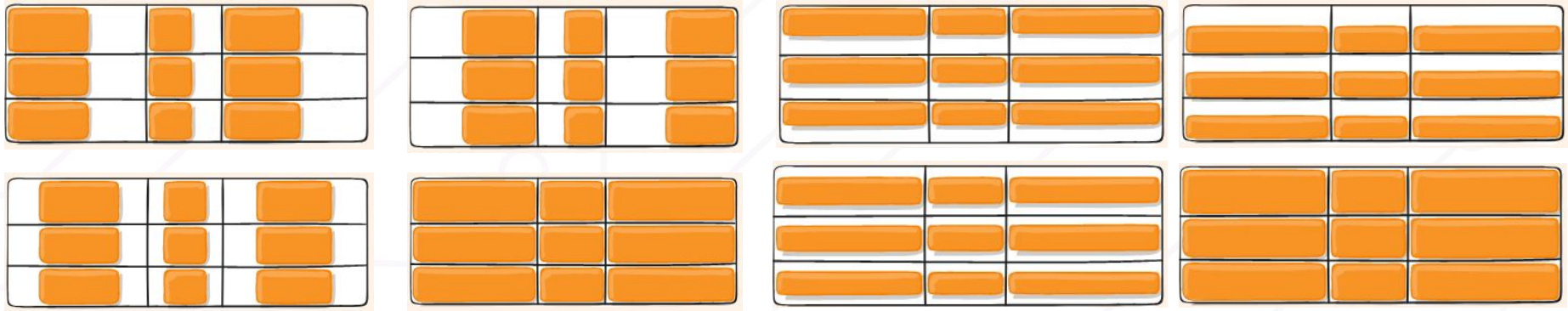



```css
.container {
    grid-template-columns: 40px 50px auto 50px 40px;
    grid-template-rows: 25% 100px auto;
  }
```

Justificar y Alinear Elementos

```
.container {
  justify-items: start | end | center | stretch;
}
```

```
.container {
  align-items: start | end | center | stretch;
}
```

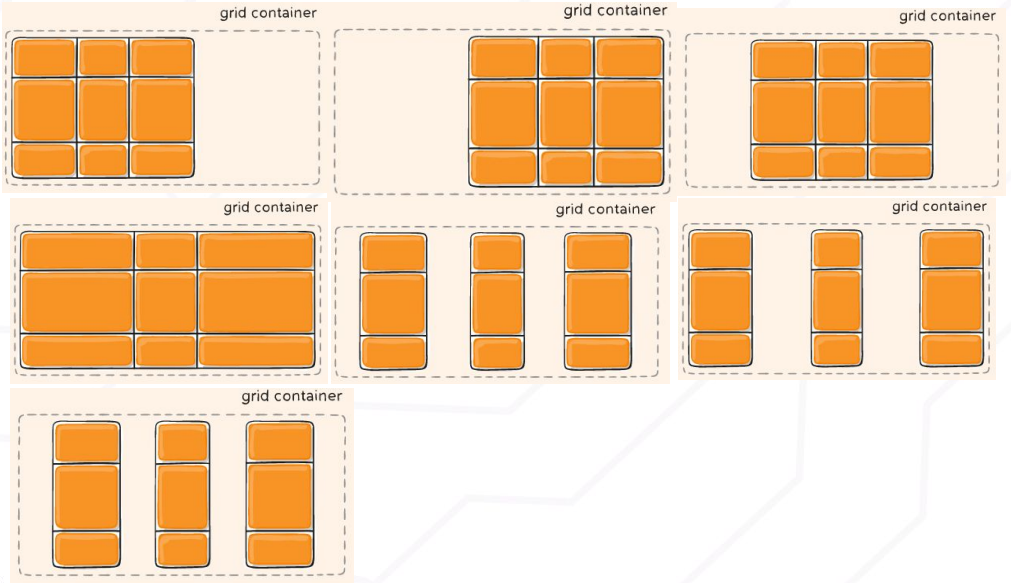


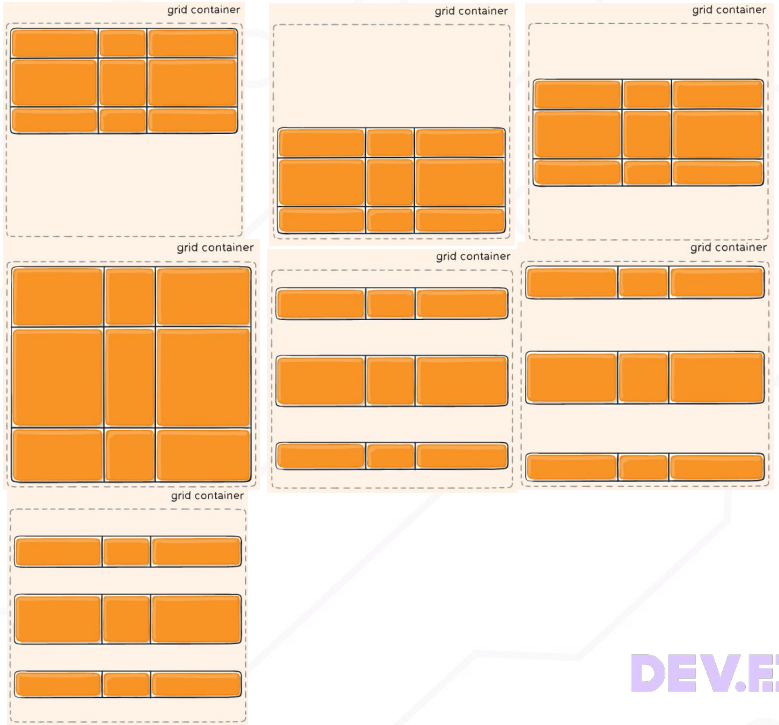
```
.container {
    display: grid;
    place-items: <align-items> / <justify-items> ;
}
```

DEV.F

Justificar y Alinear Contenido

```
.container {
  justify-content / align-content / : start | end | center | stretch | space-around | space-between | space-evenly;
}
```

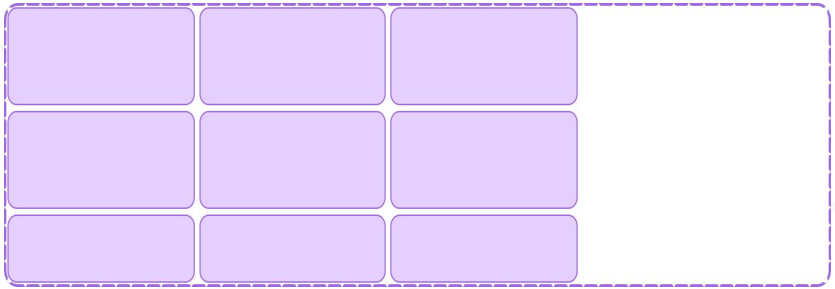




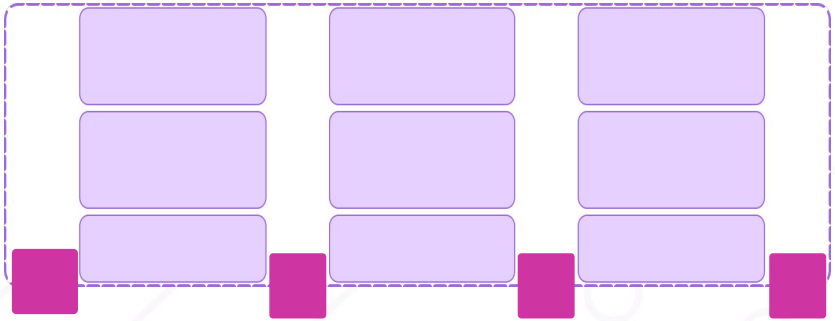

```
.container {
    display: grid;
    place-content: <align-content> / <justify-content> ;
}
```

DEV.F

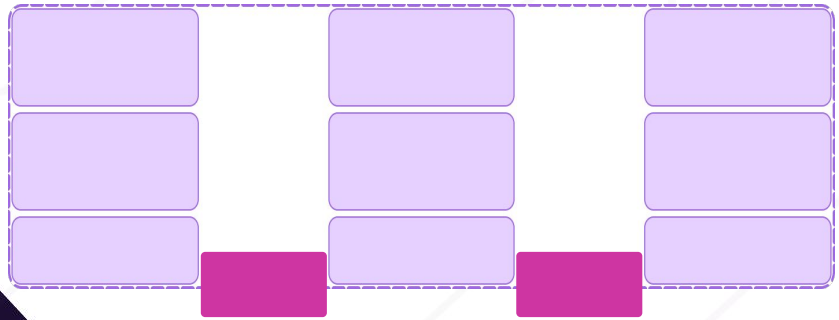
space evenly | space between | space around



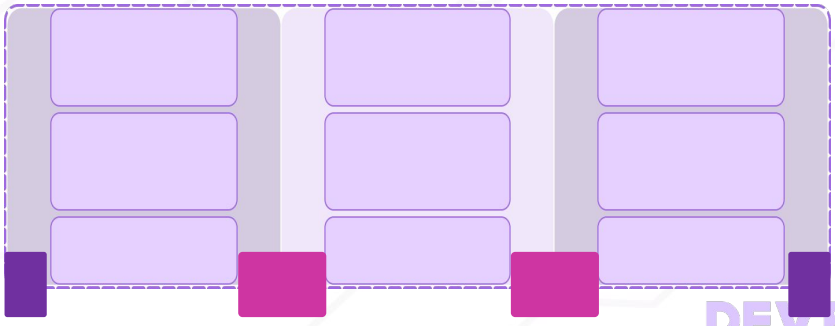
space-evenly



space-between



space-around

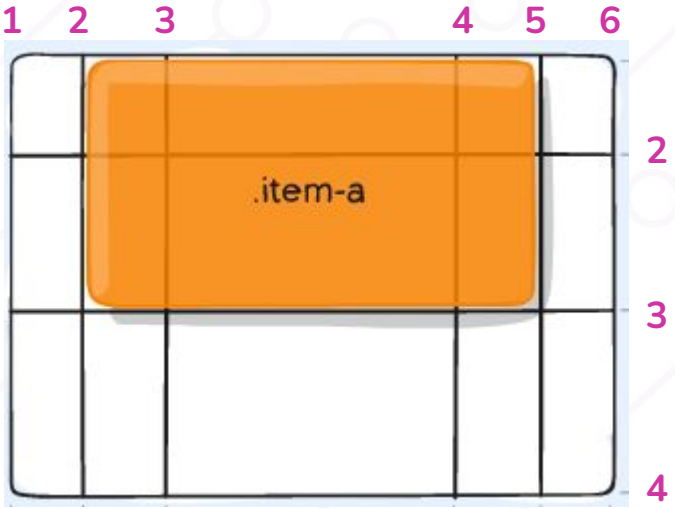


Propiedades para los hijos (Grid Items)

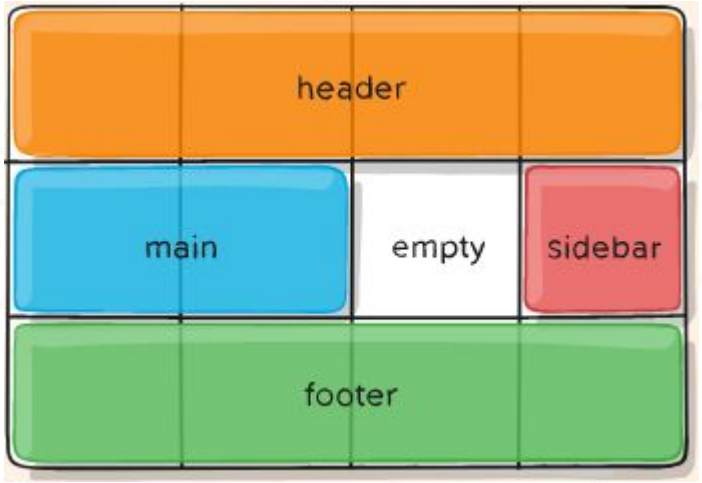
```css
.item-a {
  grid-column-start: 2;
  grid-column-end: 5;
  grid-row-start: 1;
  grid-row-end: 3;
}
```

```css
.item-a {
    grid-column-start: 2;
    grid-column-end: span 3;
    grid-row-start: 1;
    grid-row-end: span 2;
  }
```

```css
.item-a {
  grid-column: 2 / 5;
  grid-row: 1 / 3;
}
```



Ubicando item en areas



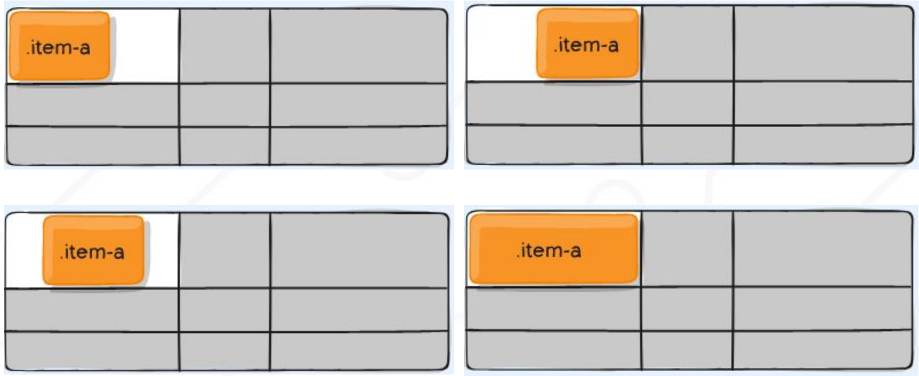

```
.container {
  display: grid;
  grid-template-columns: 50px 50px 50px 50px;
  grid-template-rows: auto;
  grid-template-areas:
    "header header header header"
    "main main . sidebar"
    "footer footer footer footer";
}
```

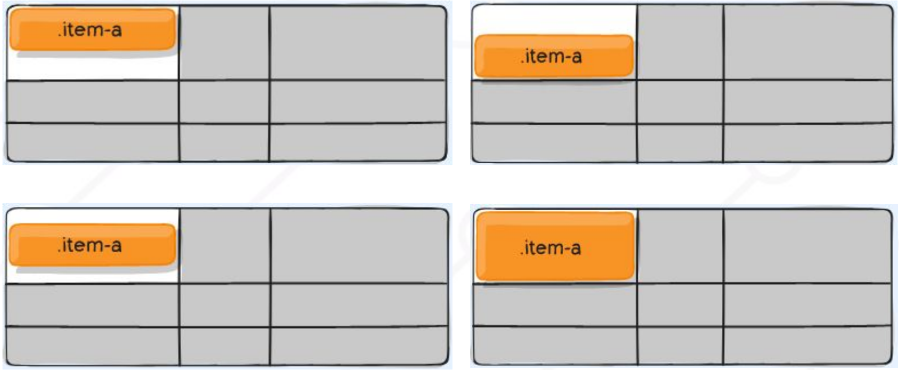
```
.item-a {
  grid-area: header;
}
.item-b {
  grid-area: main;
}
.item-c {
  grid-area: sidebar;
}
.item-d {
  grid-area: footer;
}
```

Justificación y alineación individual

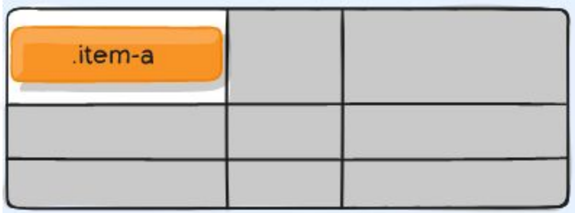
```css
.item {
  justify-self: start | end | center | stretch;
}
```

```css
.item {
  align-self: start | end | center | stretch;
}
```






```css
.item-a {
  place-self: center stretch;
}
```



La fracción

- La unidad ***fr*** te permite establecer el tamaño como una fracción del espacio libre de la cuadrícula.
- Este espacio se calcula después de quitar todos los espacios establecidos con unidades estáticas.
- Todas las fracciones se suman para llenar el espacio.

```
.container {
  grid-template-columns: 1fr 1fr 1fr;
}
```

```
.container {
  grid-template-columns: 1fr 50px 1fr 1fr;
}
```

```
.container {
    grid-template-columns: 1fr 3fr;
}
```

```
grid-template-columns: repeat(3, 1fr);
```

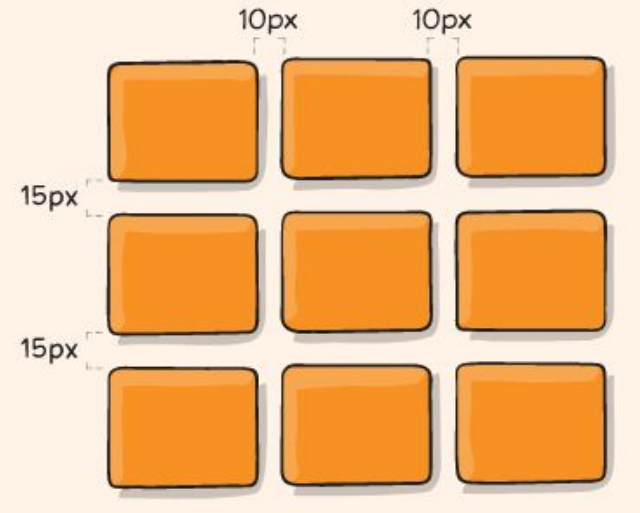
Espaciado

```
.container {
  /* standard */
  gap: <grid-row-gap> <grid-column-gap>;

  /* old */
  grid-gap: <grid-row-gap> <grid-column-gap>;
}
```

```
.container {
  /* standard */
  column-gap: <line-size>;
  row-gap: <line-size>;

  /* old */
  grid-column-gap: <line-size>;
  grid-row-gap: <line-size>;
}
```

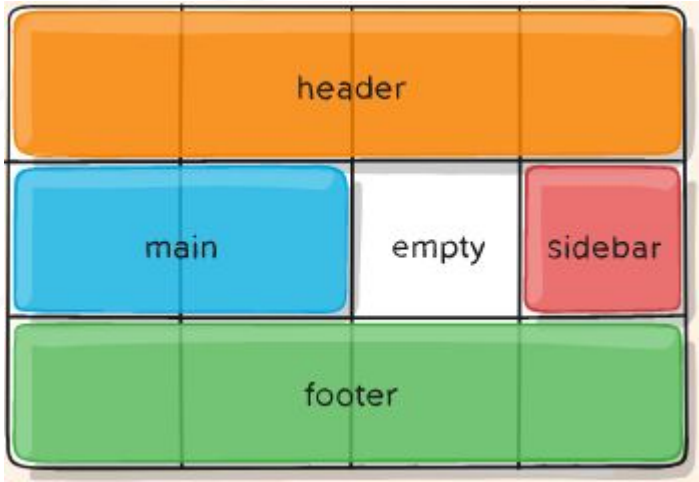
```
.container {
  grid-template-columns: 100px 50px 100px;
  grid-template-rows: 80px auto 80px;
  column-gap: 10px;
  row-gap: 15px;
}
```

```
gap: 15px 10px;
```



Manejando áreas

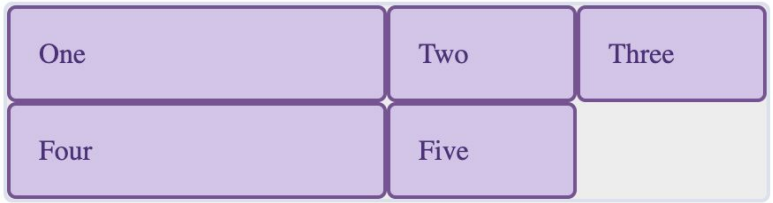
```
.container {
  grid-template-areas:
    "<grid-area-name> | . | none | ..."
    "...";
}
```

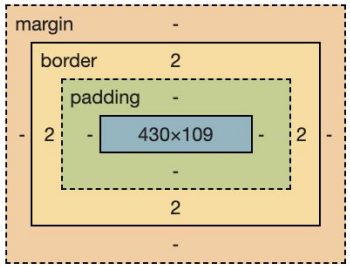



```
.container {
  display: grid;
  grid-template-columns: 50px 50px 50px 50px;
  grid-template-rows: auto;
  grid-template-areas:
    "header header header header"
    "main main . sidebar"
    "footer footer footer footer";
}
```

La fracción

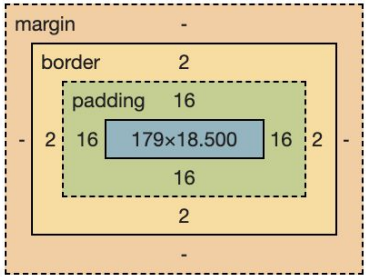
```
1
2  .wrapper {
3      display: grid;
4      grid-template-columns: 2fr 1fr 1fr;
5  }
```





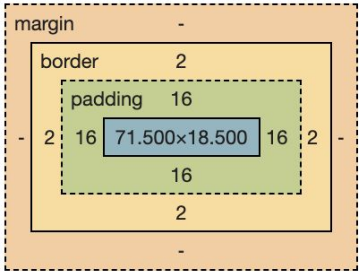
Estilos computados:

2fr



Width: 215 px

1fr



Width: 107.5 px

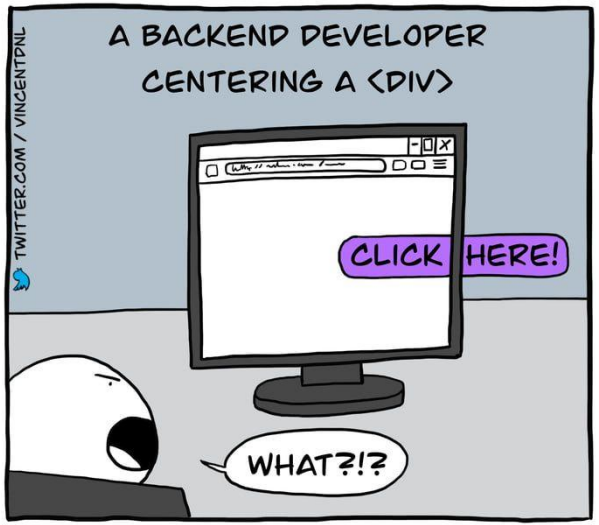
(107.5 px) * 2 = 215 px

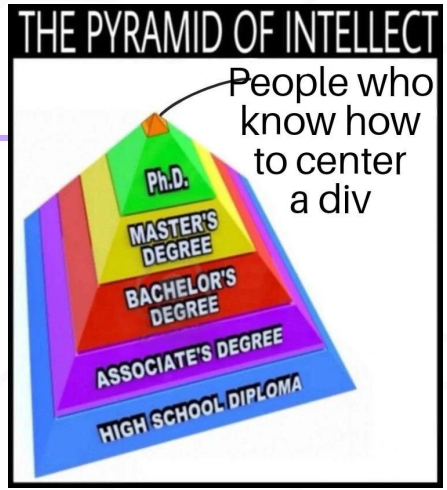
(215 px) + (107.5 px) + (107.5 px) = 430 px

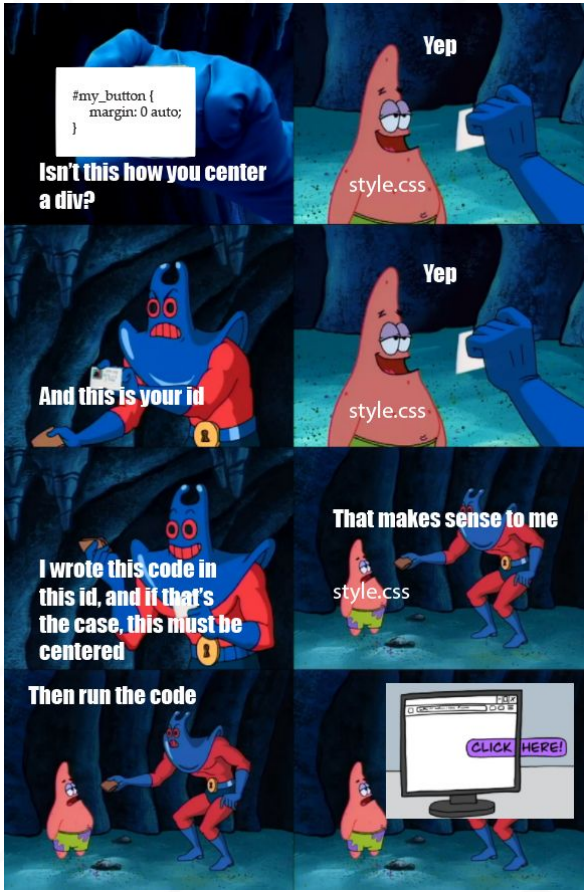
DEV.F

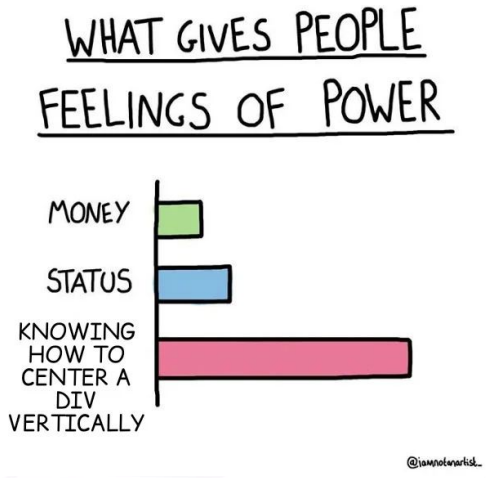
BONUS

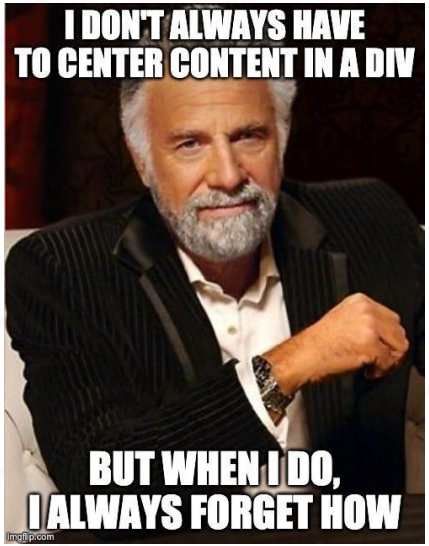
DEV.F::
DESARROLLAMOS(PERSONAS);


A BACKEND DEVELOPER
CENTERING A <DIV>
CLICK HERE!
WHAT?!?
TWITTER.COM / VINCENTDNL


THE PYRAMID OF INTELLECT
People who know how to center a div
Ph.D.
MASTER'S DEGREE
BACHELOR'S DEGREE
ASSOCIATE'S DEGREE
HIGH SCHOOL DIPLOMA


#my_button {
margin: 0 auto;
}
Isn't this how you center a div?
Yep
style.css
And this is your id
Yep
style.css
I wrote this code in this id, and if that's the case, this must be centered
That makes sense to me
style.css
Then run the code
CLICK HERE!


WHAT GIVES PEOPLE FEELINGS OF POWER
MONEY
STATUS
KNOWING HOW TO CENTER A DIV VERTICALLY
@iamnotanartist_


I DON'T ALWAYS HAVE TO CENTER CONTENT IN A DIV
BUT WHEN I DO, I ALWAYS FORGET HOW
imgflip.com


.grid-container {
display: grid;
place-content: center;
}