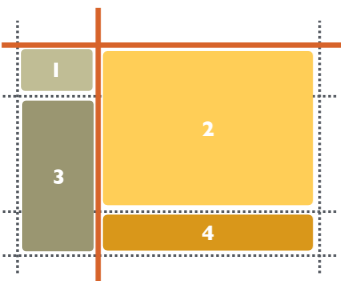
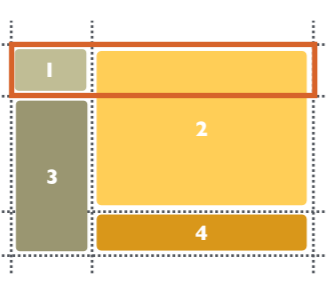


## grid concepts and example

### grid line

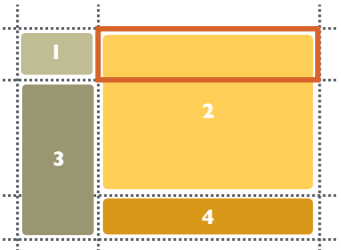


### grid track

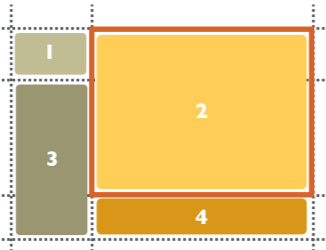


```
.parent {
  display: grid;
  grid-template-columns: 100px 1fr;
  grid-template-rows: auto 1fr auto;
}
```

### grid cell



### grid area



```
.one {
  grid-row: 1;
  grid-column: 1;
}
.two {
  grid-row: 1 / 3;
  grid-column: 2;
}
```

```
.three {
  grid-row: 2 / 4;
  grid-column: 1;
}
.four {
  grid-row: 3;
  grid-column: 2;
}
```

## defining the grid

### display

grid · inline-grid · subgrid

### grid-template-rows

none · line name · track size · auto

### grid-template-columns

none · line name · track size · auto

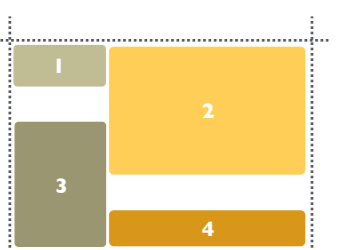
### grid-template-areas

none · string

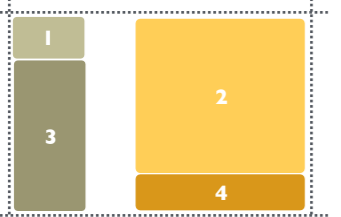
**grid-template** shortcut for grid-template-rows|column  
**grid** shortcut for... everything

## gaps

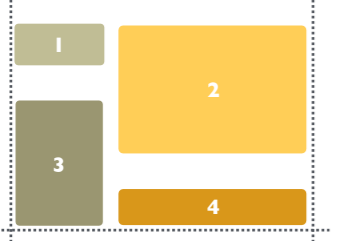
specifying size of row and column gutters



```
.parent {
  row-gap: 50px;
}
```



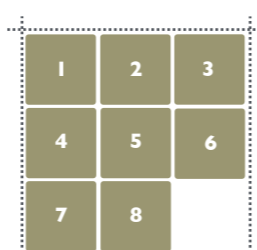
```
.parent {
  column-gap: 50px;
}
```



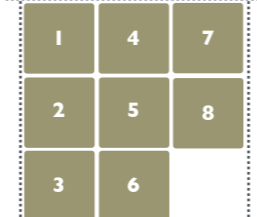
```
.parent {
  gap: 50px 10px;
}
```

## auto placement

automatic placement for items that aren't placed



```
.parent {
  grid-auto-flow: row;
}
```



```
.parent {
  grid-auto-flow: column;
}
```



```
.parent {
  grid-auto-flow: dense;
}
```

## container alignment

### align-content

vertical alignment for whole grid  
 start · end · center · stretch · space-around  
 space-between · space-evenly

### justify-content

horizontal alignment for whole grid  
 start · end · center · stretch · space-around  
 space-between · space-evenly

### place-content

shortcut for align-content and justify-content

### align-items

vertical alignment for items in their cells  
 start · end · center · stretch

### justify-items

horizontal alignment for items in their cells  
 start · end · center · stretch

### place-items

shortcut for align-items and justify-items

## placing items

### grid-row-start

auto · line name · line number

### grid-row-end

auto · line name · line number

### grid-row

shortcut for grid-row-start|end

### grid-column-start

auto · line name · line number

### grid-column-end

auto · line name · line number

### grid-column

shortcut for grid-column-\*

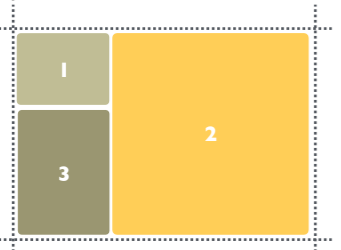
### grid-area

shortcut for... everything

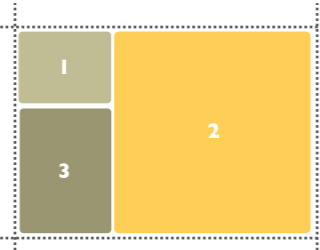
### span N

keyword for row or column spanning

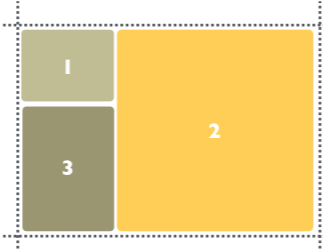
```
.two {
  grid-row-start: 1;
  grid-row-end: 3;
}
```



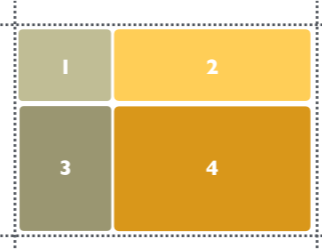
```
.two {
  grid-row: 1 / 3;
}
```



```
.two {
  grid-row: 1 / span 2;
}
```



```
.four {
  grid-area: 2 / 2 / 3 / 3;
}
```



## item alignment

### justify-self

horizontal alignment for specific item in its cell  
 start · end · center · stretch

### align-self

vertical alignment for specific item in its cell  
 start · end · center · stretch

### place-self

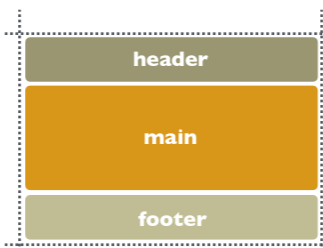
shortcut for align-self and justify-self

## patterns

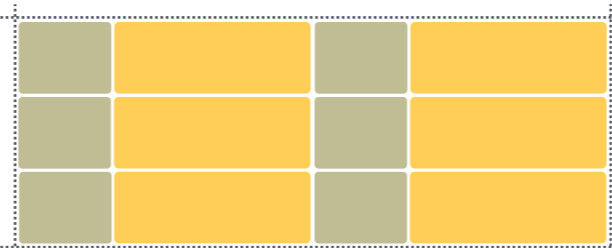
```
.parent {
  align-content: center;
  justify-content: center;
}
```



```
.parent {
  grid-auto-rows:
  auto 1fr auto;
}
```



```
.parent {
  grid-template-columns: repeat(2, 100px 1fr);
}
```



```
.parent {
  grid-template-columns: repeat(4, 22%);
  justify-content: space-between;
}
```



## resources

### english

- Grid by example: <https://gridbyexample.com/>
- Learn CSS Grid: <http://learncssgrid.com/>
- CSS Grid free videos: <https://cssgrid.io/>
- CSS Grid Garden: <http://cssgridgarden.com/>

### francophone

- CSS Grid chez Alsacréations : <http://kiwi.gg/gridlayout>
- 50 nuances de grilles : <https://speakerdeck.com/goetter/50-nuances-de-grilles>