

CSS Flexbox made simple

by Nikki Siapno &
Chris Staudinger

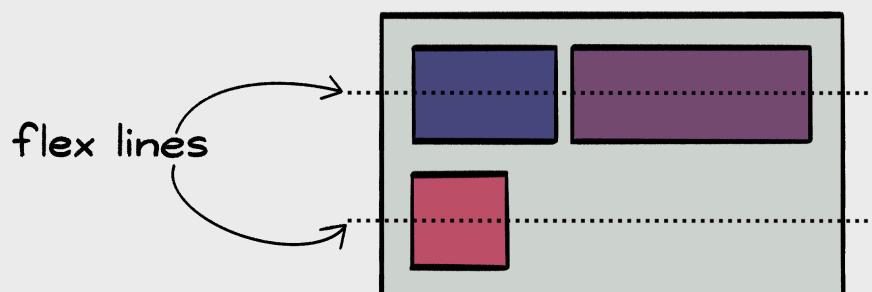
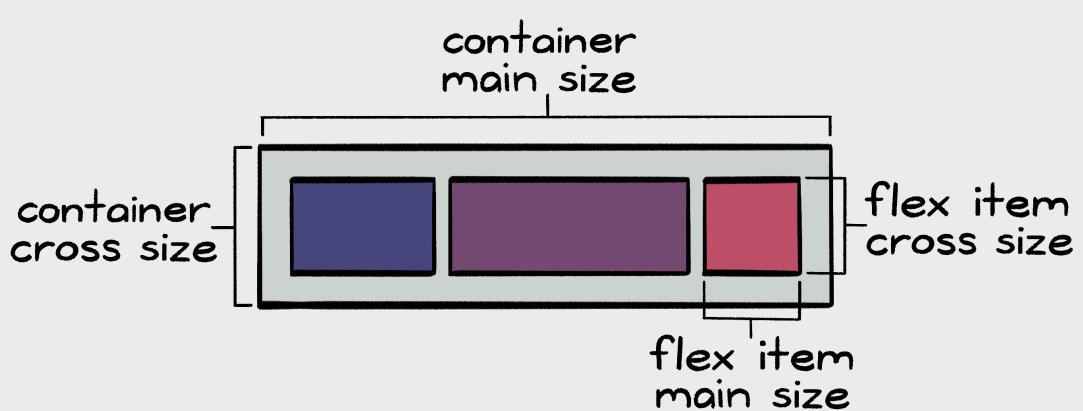
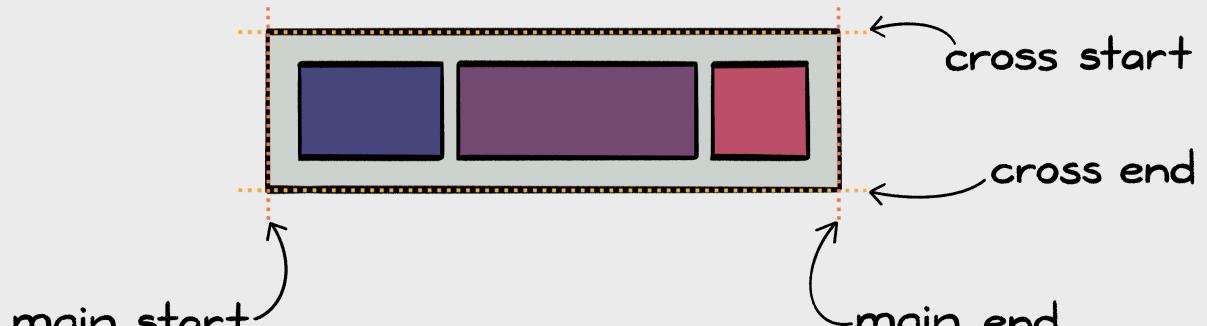
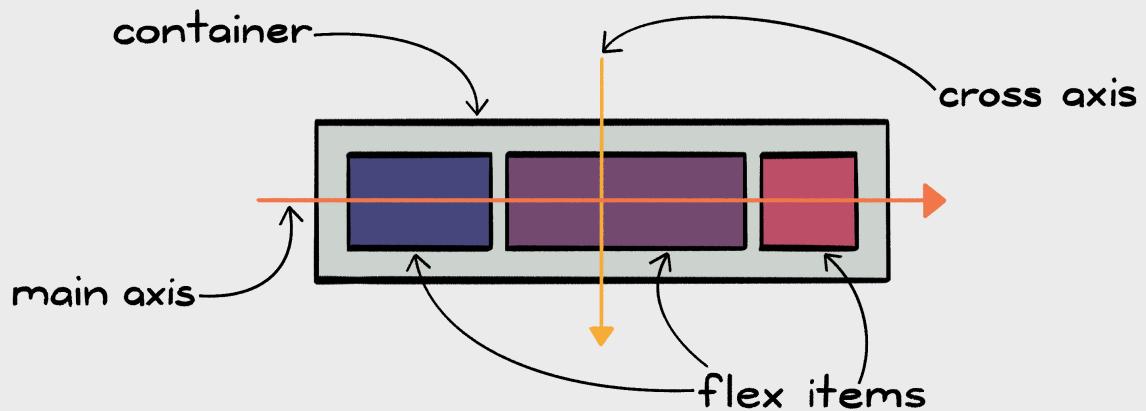
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Terminology

Flex items are laid out along the main axis. The orientation of the main axis (whether it's horizontal or vertical) is determined by the flex-direction property.

The cross axis is perpendicular to the main axis.



flex-direction

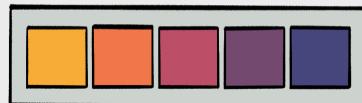
Sets the main axis for a flex container which defines the direction flex items are placed.

The default value is row.

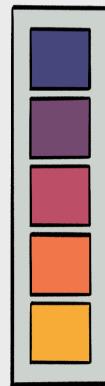
flex-direction: row



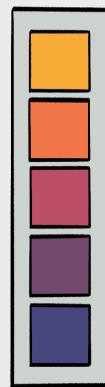
flex-direction: row-reverse



flex-direction: column



flex-direction: column-reverse

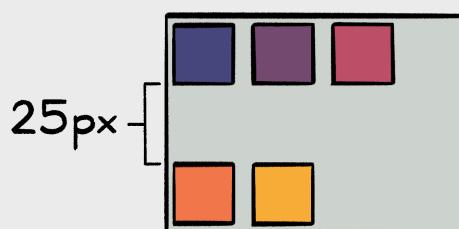


gap, row-gap & column-gap

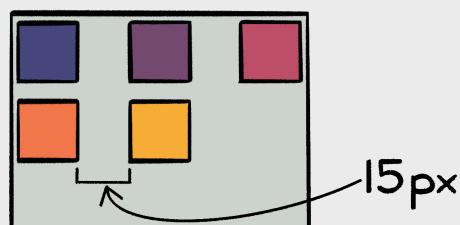
Sets spacing between flex items.

NOTE: this does not apply to spacing between flex items and the outer edges of the flex container.

row-gap: 25px



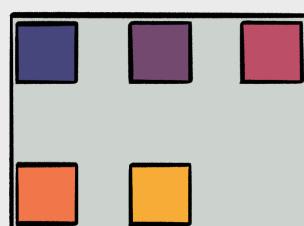
column-gap: 15px



sets row gap

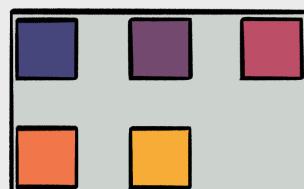
gap: 25px 15px

sets column gap



gap: 15px

sets row gap
& column gap

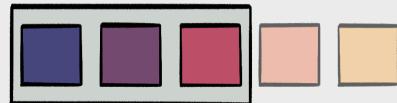


flex-wrap

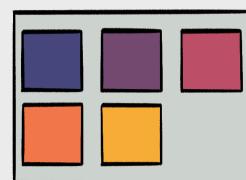
Sets the wrap setting and direction.

The default value is nowrap.

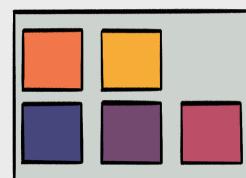
flex-wrap: nowrap



flex-wrap: wrap



flex-wrap: wrap-reverse



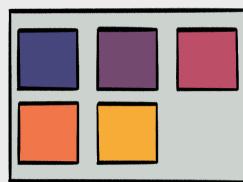
flex-flow

Shorthand for the flex-direction and flex-wrap properties.

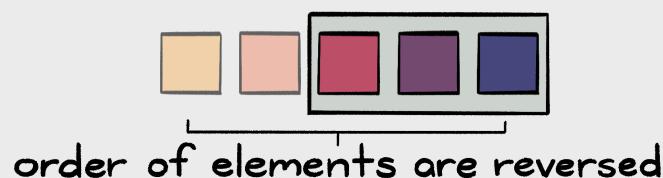
The default value is row nowrap.

flex-flow: [flex-direction] [flex-wrap]

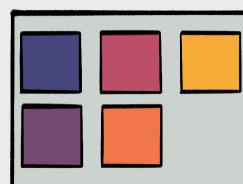
flex-flow: row wrap



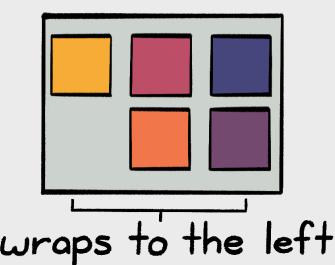
flex-flow: row-reverse nowrap



flex-flow: column wrap



flex-flow: column wrap-reverse



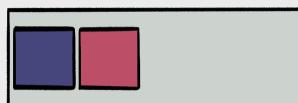
justify-content

Defines how flex items are aligned along the main axis.
This property helps to distribute free space.

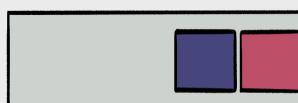
The default value is flex-start.

The below example shows the property values when the flex-direction property is set to row.

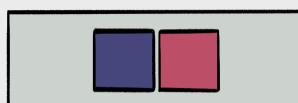
justify-content: flex-start



justify-content: flex-end



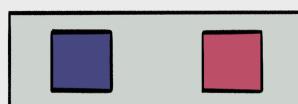
justify-content: center



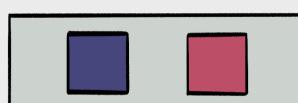
justify-content: space-between



justify-content: space-around



justify-content: space-evenly



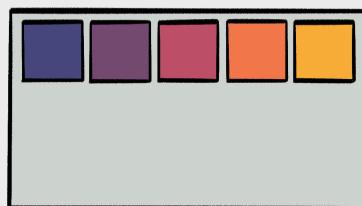
align-items

Defines how flex items are aligned along the cross axis.

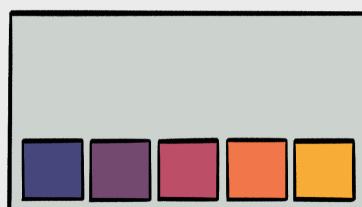
The default value is stretch.

The below example shows the property values when the flex-direction property is set to row.

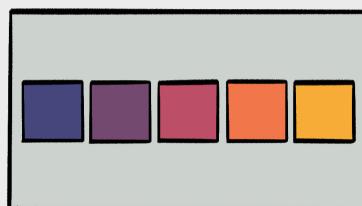
align-items: flex-start



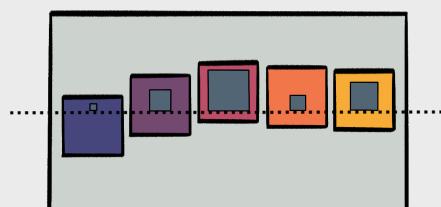
align-items: flex-end



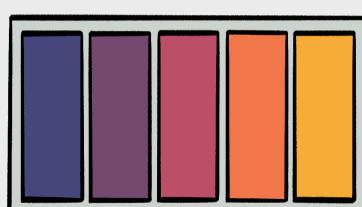
align-items: center



align-items: baseline



align-items: stretch

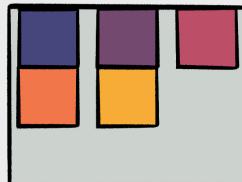


align-content

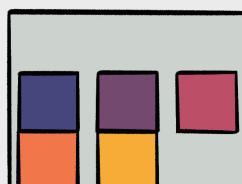
Groups flex items together and aligns them along the container's cross axis. This property helps to distribute free space.

The default value is normal.

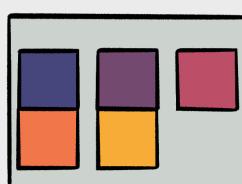
align-content: flex-start



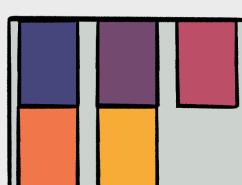
align-content: flex-end



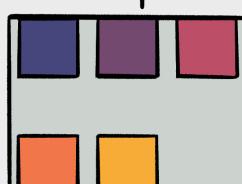
align-content: center



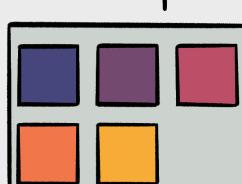
align-content: stretch



align-content: space-between



align-content: space-around

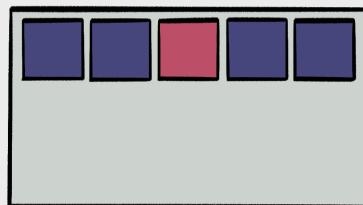


align-self

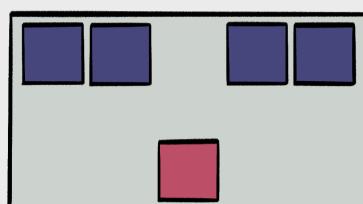
Overrides the value set by align-items and sets the alignment of specified flex items along the cross-axis.

The default value is auto.

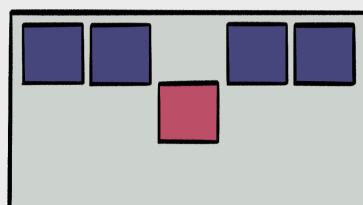
■ align-self: flex-start



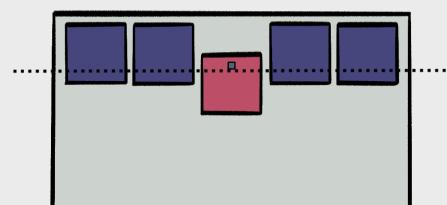
■ align-self: flex-end



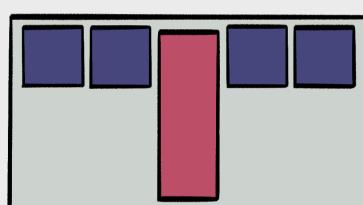
■ align-self: center



■ align-self: baseline



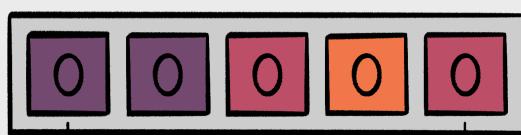
■ align-self: stretch



order

Specifies the order of flex items. If two or more flex items have the same order value, the order of the elements in the source code (HTML) is used.

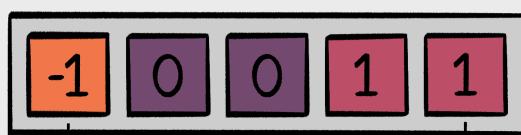
The default value is 0.



the source code
order is used

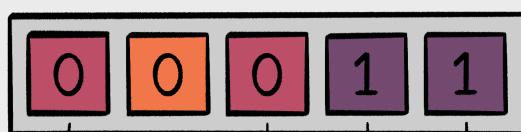
■ order: -1

■ order: 1



order values are
used to shift items

■ order: 1



use order property
to move items

the source code order
is used when order values
are the same

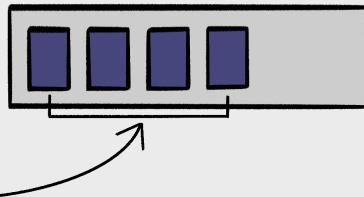
flex-grow

Determines how free space is distributed across flex items.

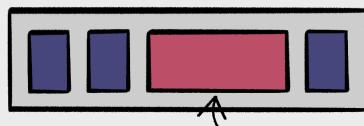
Negative numbers are invalid.

Default value is 0.

if a value isn't set,
flex items won't take
up the available space



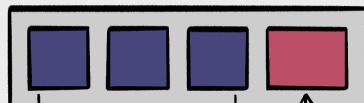
■ flex-grow : 1



takes up all
available space

■ flex-grow : 1

■ flex-grow : 2



takes up 1 fraction
of the available
space each

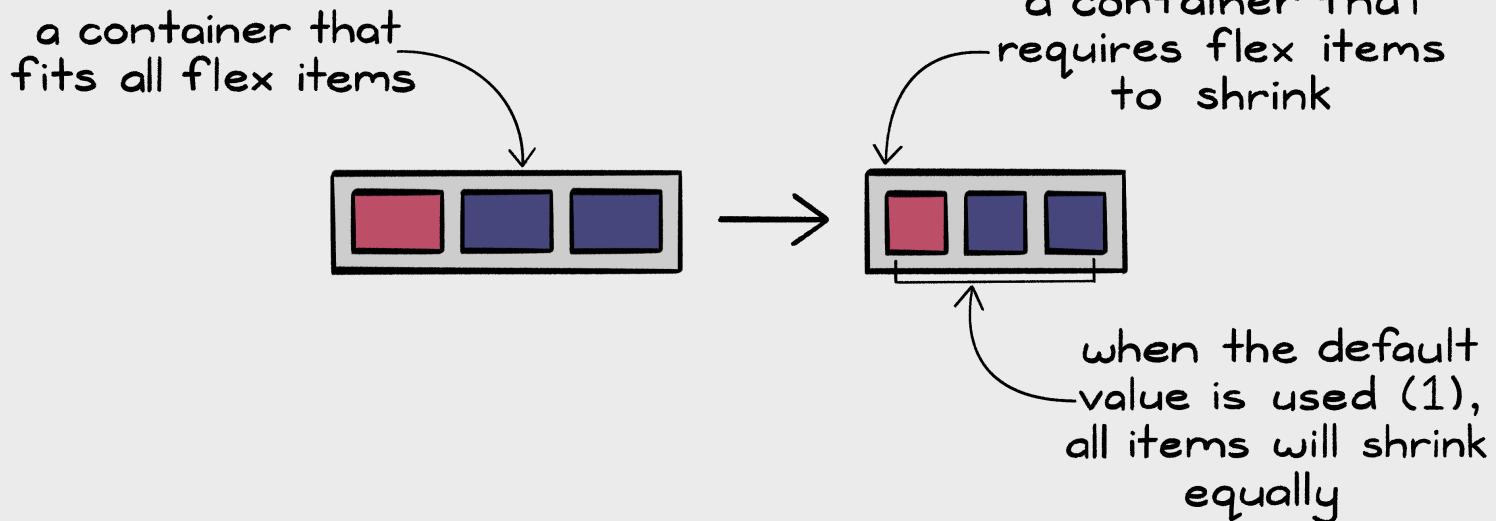
takes up 2
fractions of the
available space

flex-shrink

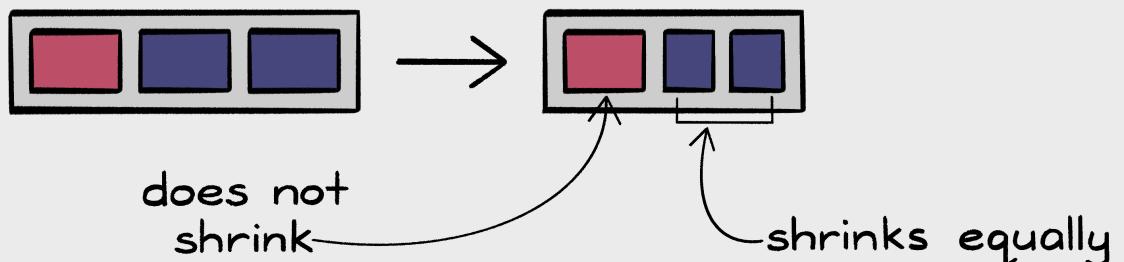
Specifies how a flex item shrinks (when necessary) relative to its siblings.

Negative numbers are invalid.

The default value is 1.

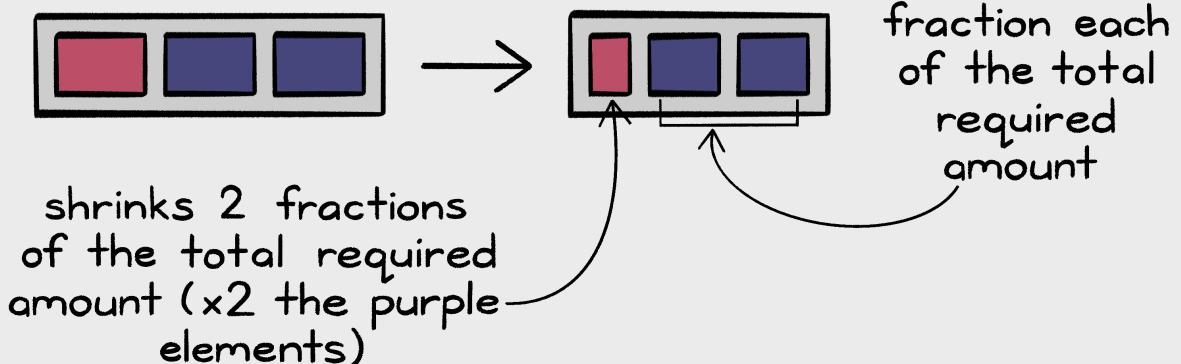


■ flex-shrink: 0



■ flex-shrink: 1

■ flex-shrink: 2



flex-basis

Sets the initial size of a flex item before free space is distributed.

Negative numbers are invalid.

The default value is auto.

■ ■ flex-grow: 0

■ flex-basis: 50px

■ flex-basis: 100px



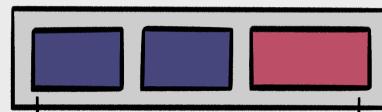
initial width
is 50px each

initial width
is 100px

■ ■ flex-grow: 1

■ flex-basis: 50px

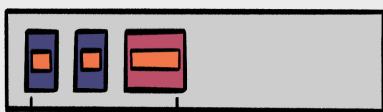
■ flex-basis: 100px



free space distribute
evenly on top of
the initial values

■ ■ flex-grow: 0

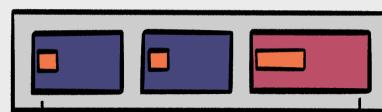
■ flex-basis: auto



uses the height & width
property values if they've
been set, otherwise uses
the content size

■ ■ flex-grow: 1

■ flex-basis: auto



free space distribute
evenly on top of
the initial values

flex-basis cont'd

■ ■ flex-grow: 0

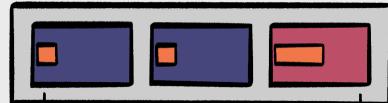
■ ■ flex-basis: 0



minimum content size regardless of height and width properties

■ ■ flex-grow: 1

■ ■ flex-basis: 0



all space distributed evenly regardless of the initial values

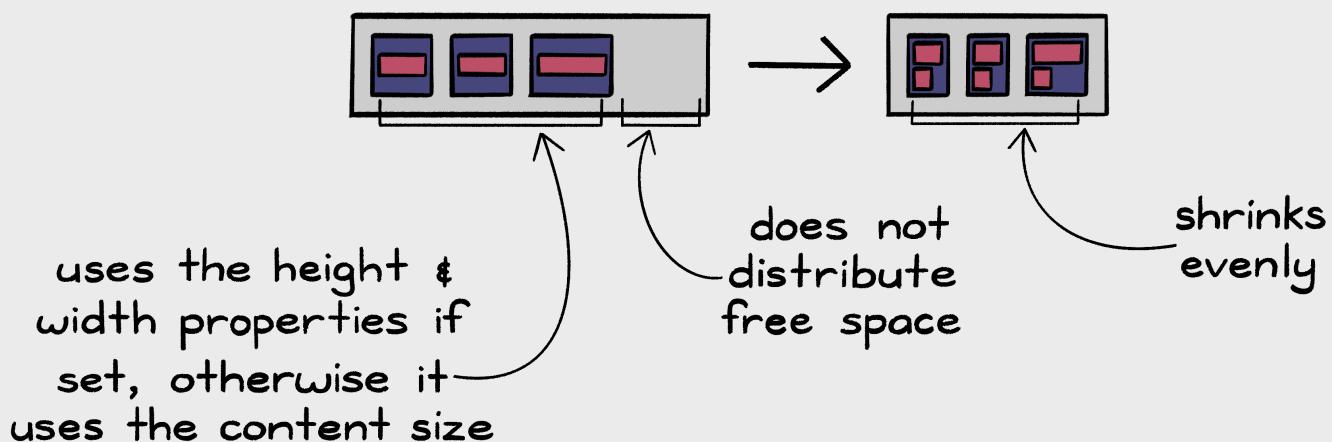
flex

Shorthand for flex-grow, flex-shrink and flex-basis.

The default value is 0 1 auto.

flex: [flex-grow] [flex-shrink] [flex-basis]

flex: 0 1 auto



When only a single value is passed, the value is used for flex-basis. flex-grow and flex-shrink defaults to 1.

flex: 100px

