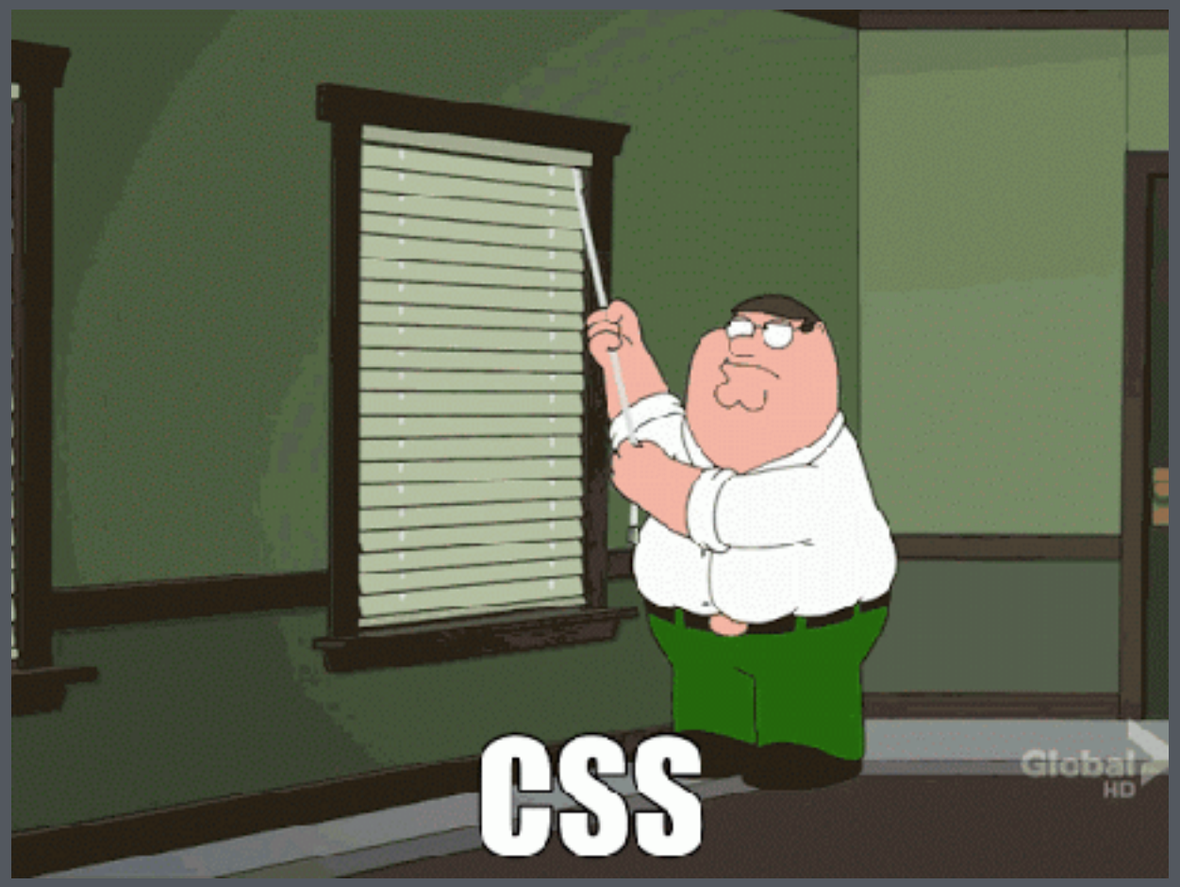
FLEXBOX

FLEX BOX

CSS only recently got real layout tools (CSS Flexbox and Grid) - for years we were stuck with Floats / Clears

FLOAT LAYOUTS



WHY?

CSS was written a LONG time ago, in a galaxy far far away (called the 1990s).

There was no concept of a multi-device universe or interactive websites. Everything was based around print layouts.

FLOATS

That why's we have the float-based system - it comes from print design where you "float" images in a sea of words - like in a magazine.

The web doesn't

FLOAT

anymore

Now we…

FLEX

How does

FLEXBOX

work?

PARENT (CONTAINER)

Flex containers are the objects that contain the children

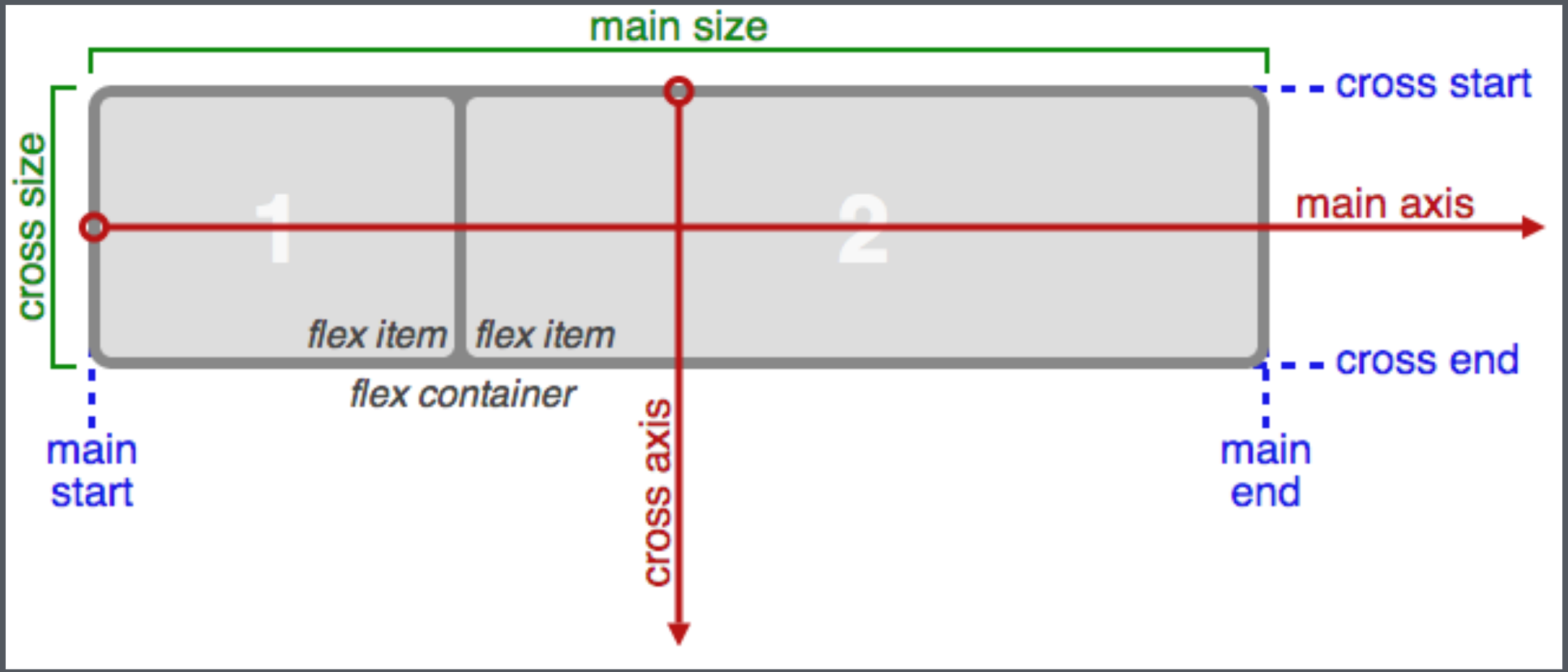
CHILDREN (ITEMS)

Flex items are the children that go inside the parent container

FLEXBOX IN ACTION

HOW TO FLEXBOX

Multi-axis alignment method



HOW TO FLEXBOX

HOW TO FLEXBOX

Easy to start, harder to use well

```
.container {
  display: flex;
  justify-content: center;
  align-items: center;
}

.item {
  background-color: orange;
  height: 100px;
  width: 100px;
}
```

When building

FLEXBOX LAYOUTS

Every Container Must Have:

```
display: flex;
```

Which also gives you the following for free:

```
flex-direction: row;
justify-content: flex-start;
align-items: stretch;
```

Flexbox
Parent
Children
Main Axis
Cross Axis
flex-direction
flex-wrap
justify-content
align-items
order
flex-grow
align-self

REFERENCE

Assignment #1

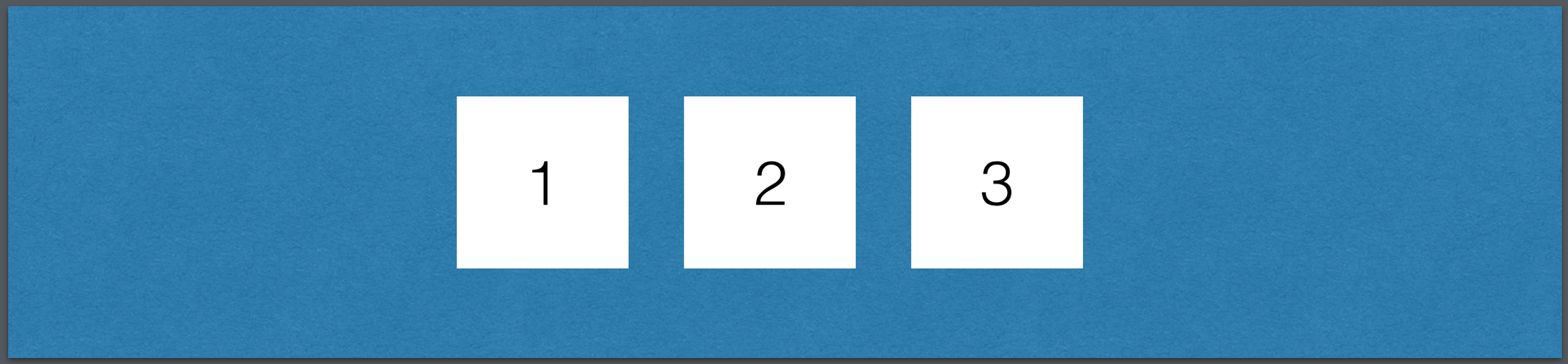
PARENT PROPERTIES

JUSTIFY-CONTENT

Controls how boxes space in flexbox rows/columns.

```
justify-content: flex-start;
```

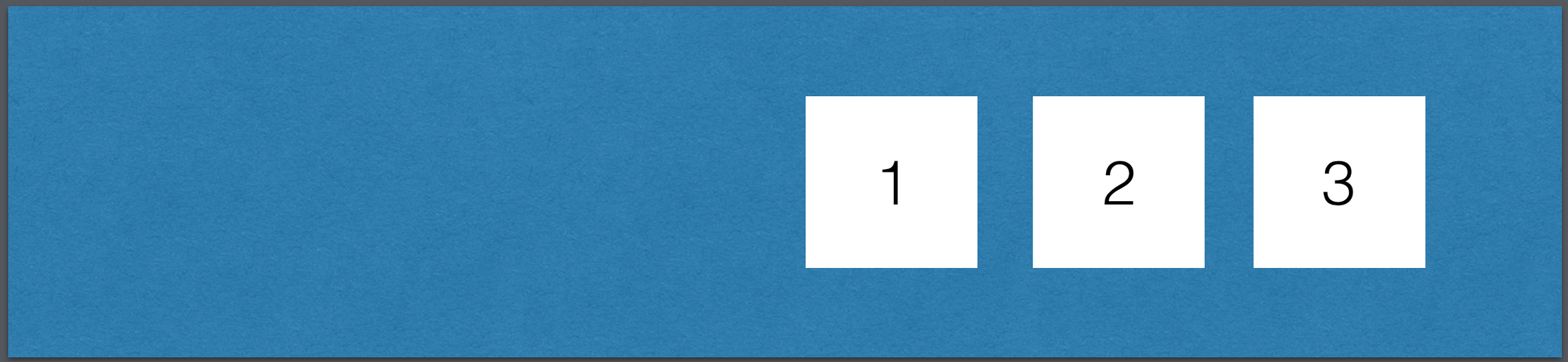
JUSTIFY-CONTENT



Centering is easy - note, auto margins don't work in flex land.

```
justify-content: flex-center;
```

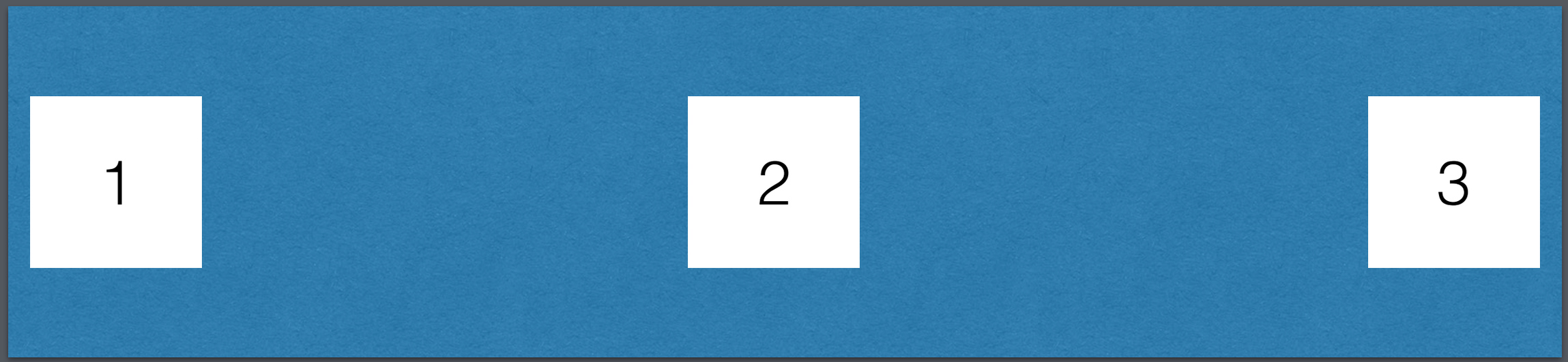
JUSTIFY-CONTENT



Push everything right, similar to text-align: right; but for layouts!

```
justify-content: flex-end;
```

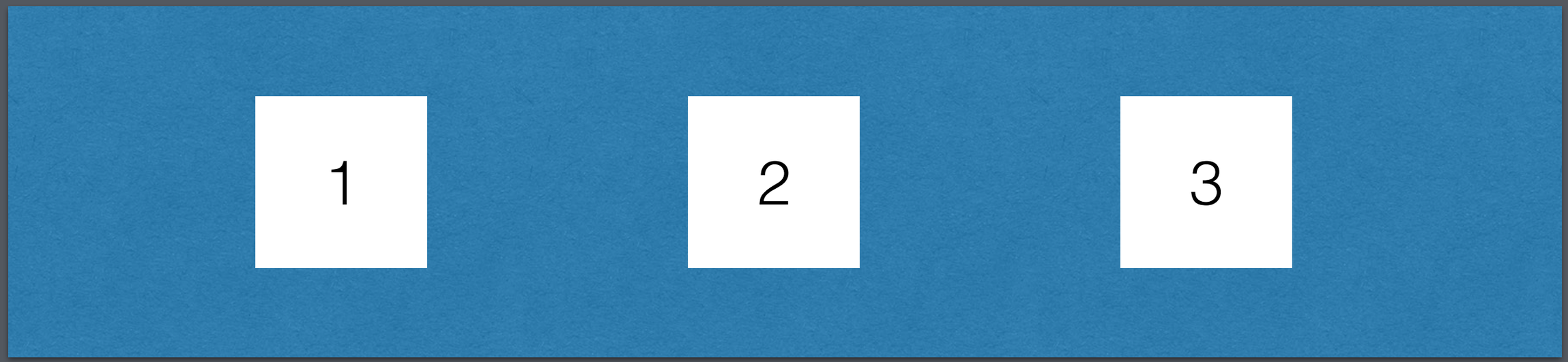
JUSTIFY-CONTENT



Pushes stuff as far apart as possible.

```
justify-content: space-between;
```

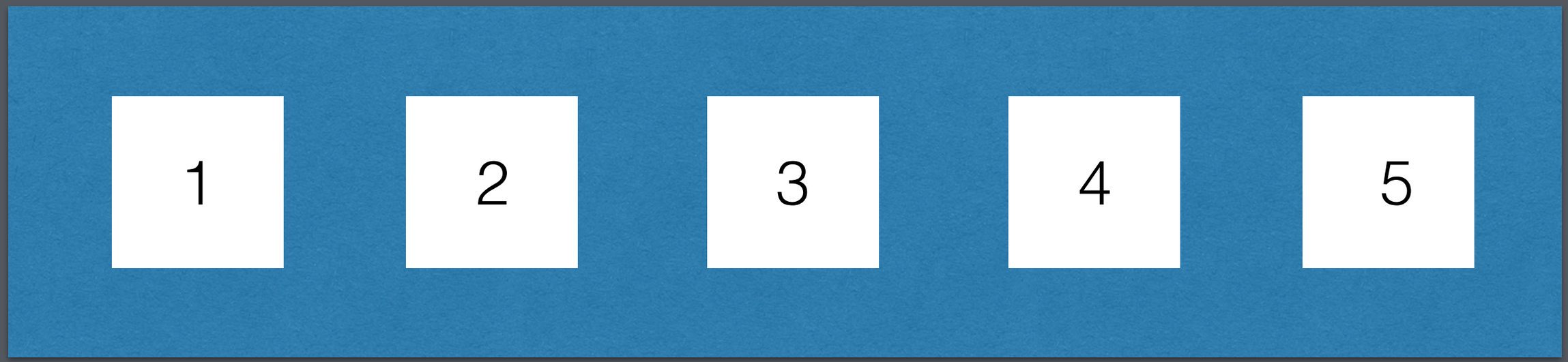
JUSTIFY-CONTENT



Centers with respect to total row/column, equal spacing between each item.

```
justify-content: space-around;
```

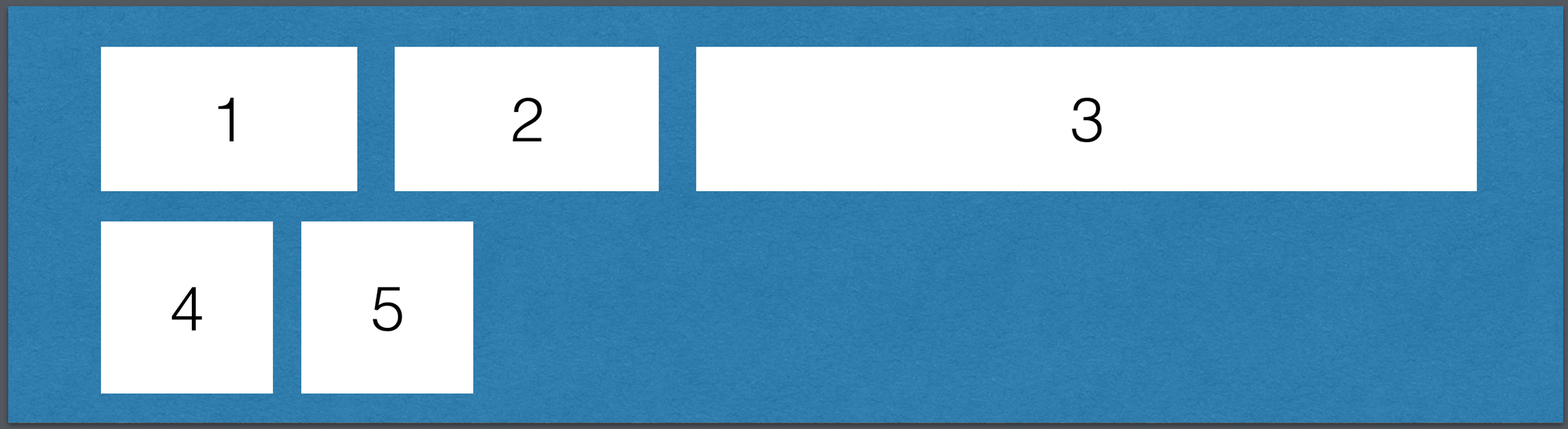
FLEX-WRAP



Be default, all boxes are stuffed into one row.

```
flex-wrap: nowrap;
```

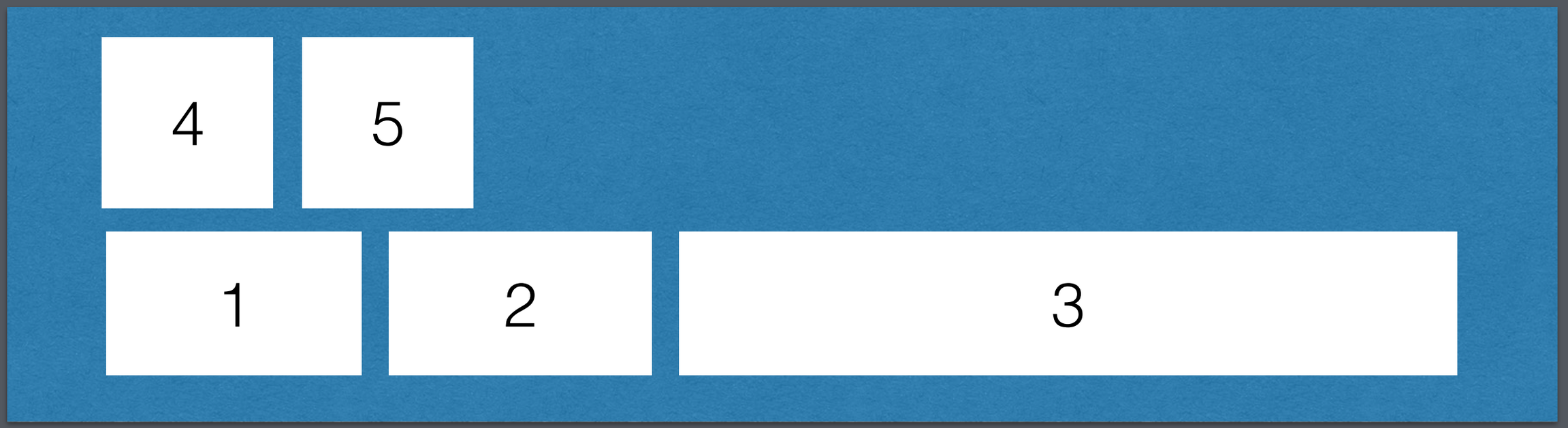
FLEX-WRAP



But you can make them pop-out into additional rows as needed.

```
flex-wrap: wrap;
```

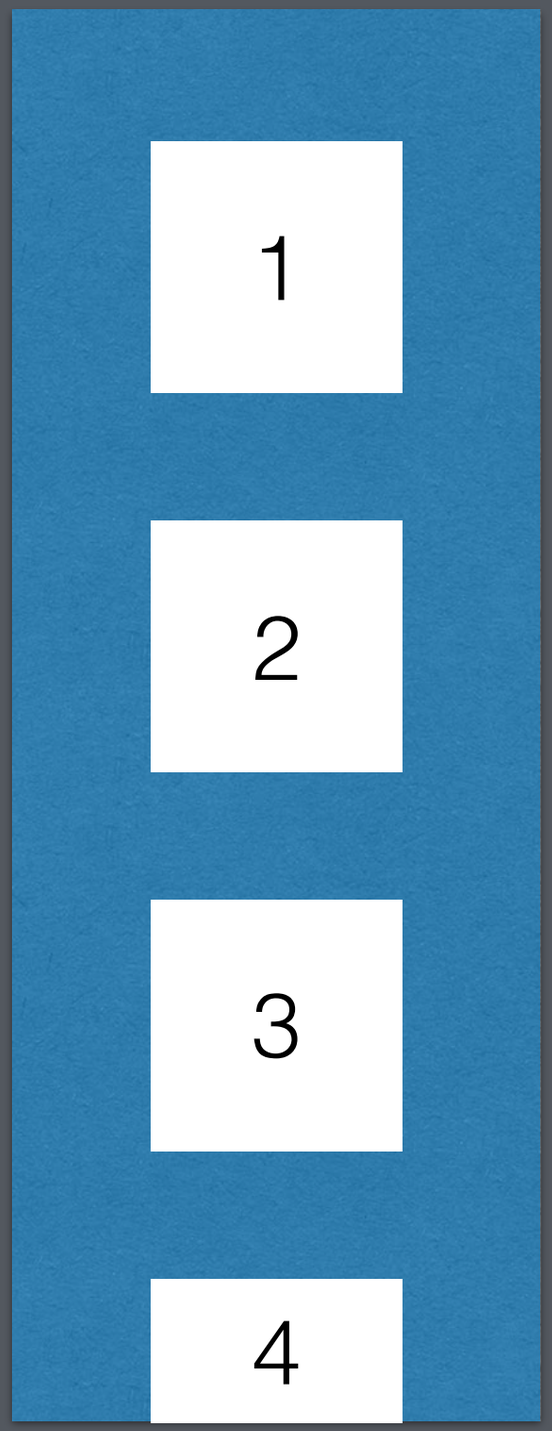
FLEX-WRAP



They can display right to left as well and bottom-to-top (I find this very confusing personally and don't use it).

```
flex-wrap: wrap-reverse;
```

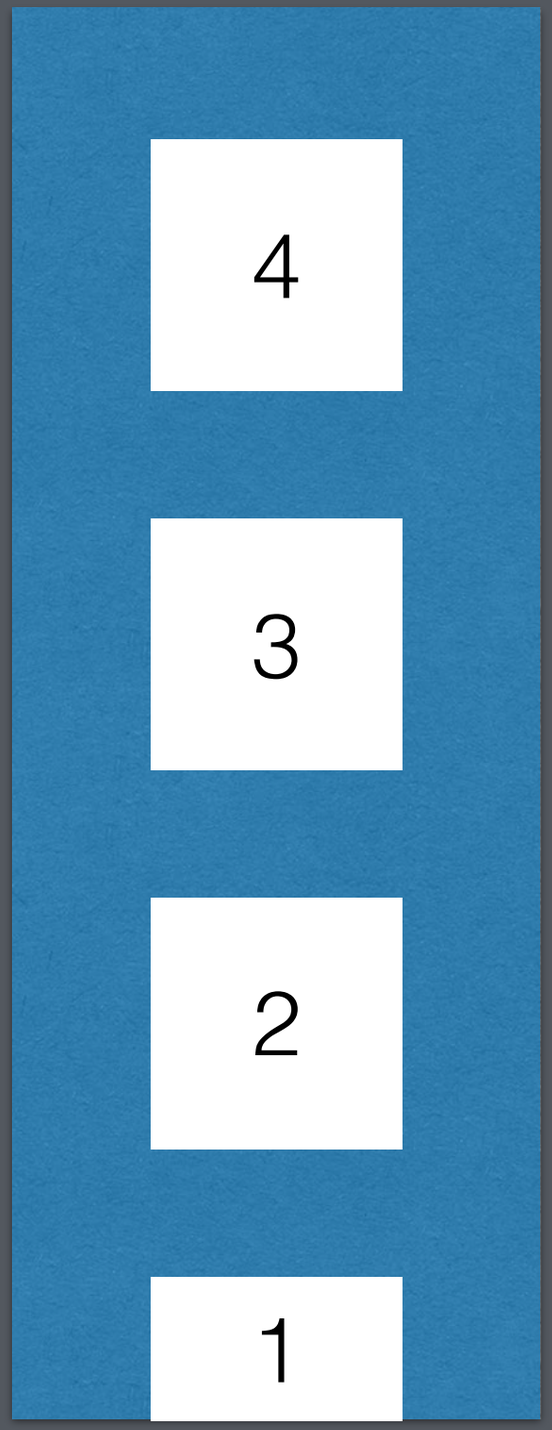
FLEX-DIRECTION



Think about orientation - flexbox layouts are inherently vertical or horizontal

```
flex-direction: column;
```

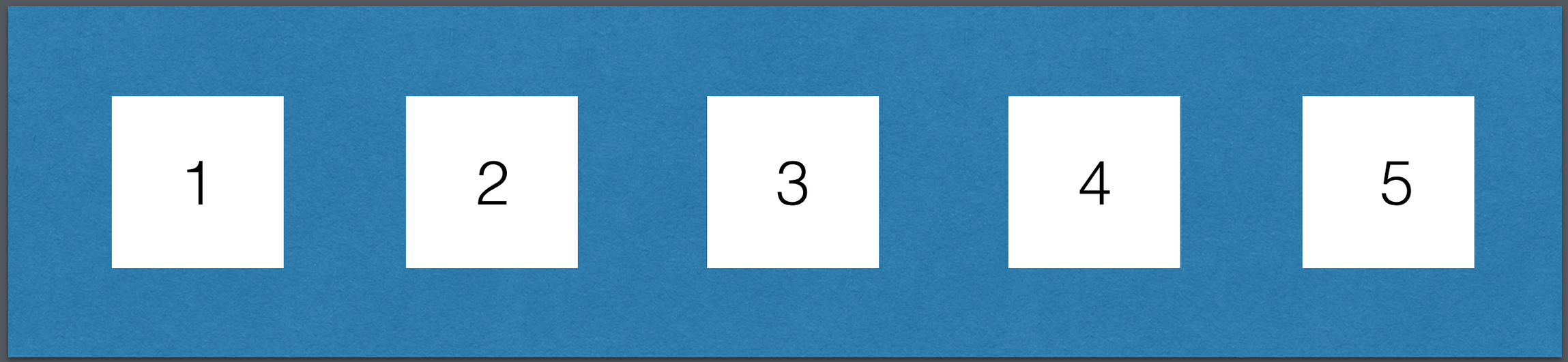
FLEX-DIRECTION



You can easily flip the display order without reordering your HTML!

```
flex-direction: column-reverse;
```

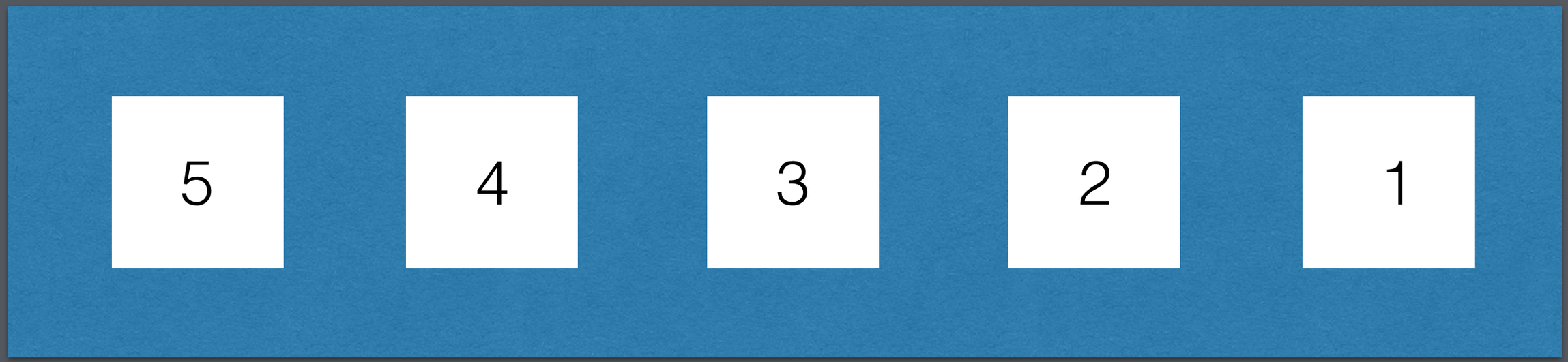
FLEX-DIRECTION



You can also do layouts in a row.

```
flex-direction: row;
```

FLEX-DIRECTION



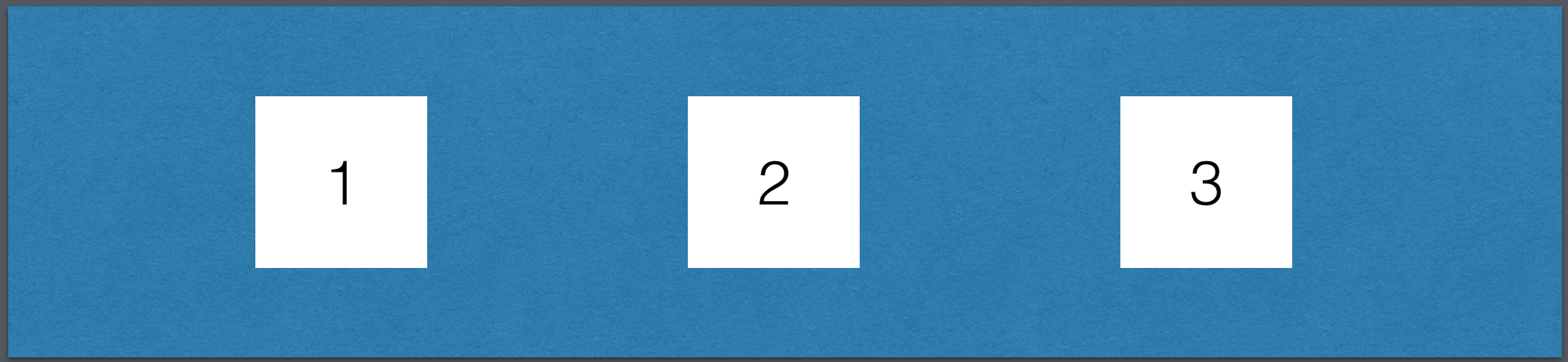
You can also flip rows - this is very advantageous for right-to-left languages like Arabic.

```
flex-direction: row-reverse;
```

ALIGN-ITEMS

Controls vertical alignment - hurrah! Only took CSS 20 years...

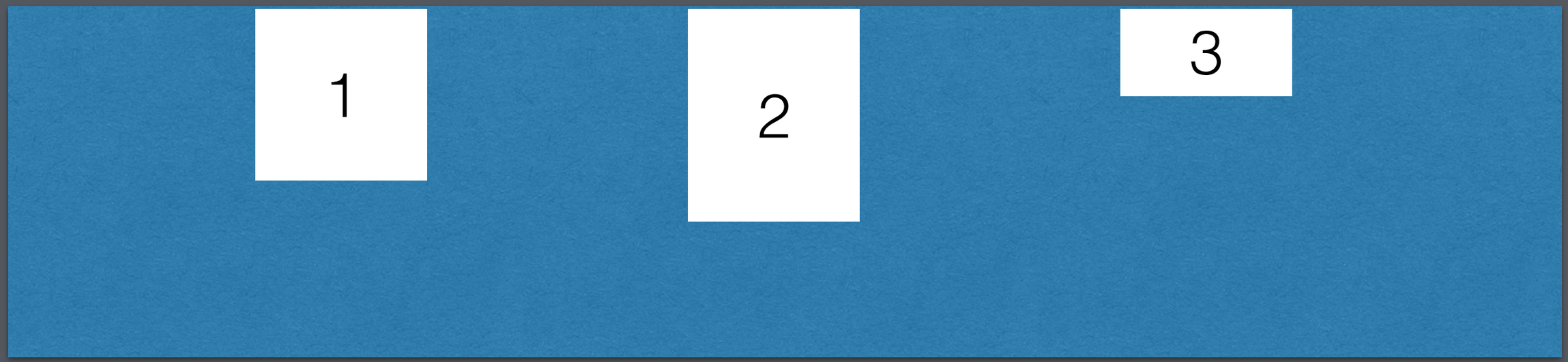
ALIGN-ITEMS



Centers children items vertically

```
align-items: center;
```

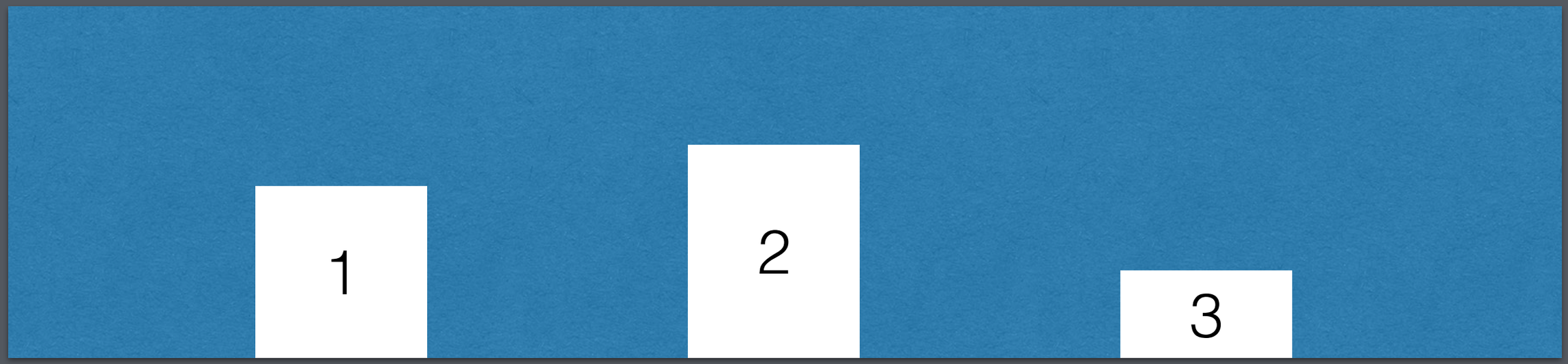
ALIGN-ITEMS



Top-aligns children, even if they have different heights

```
align-items: flex-start;
```

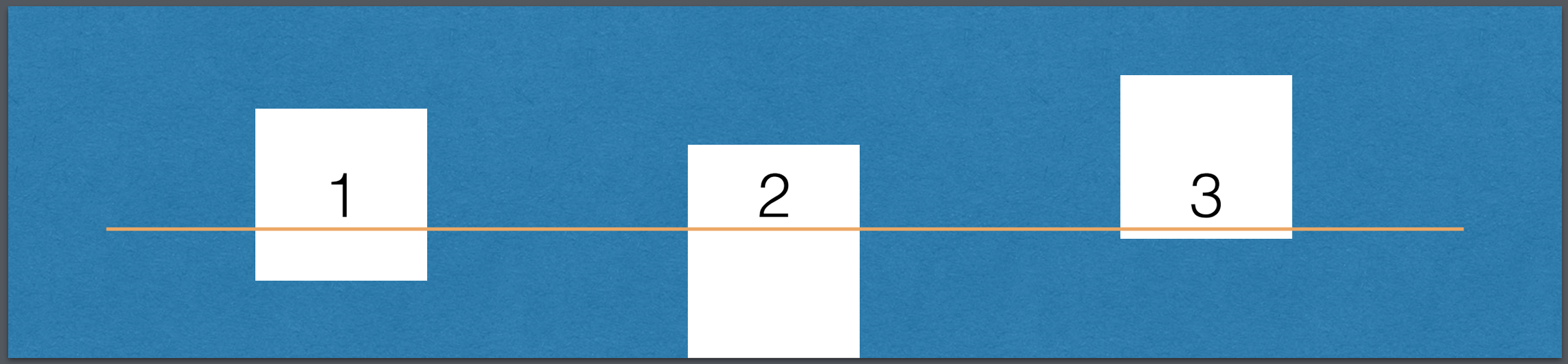
ALIGN-ITEMS



Bottom-aligns children, even if they have different heights

```
align-items: flex-end;
```

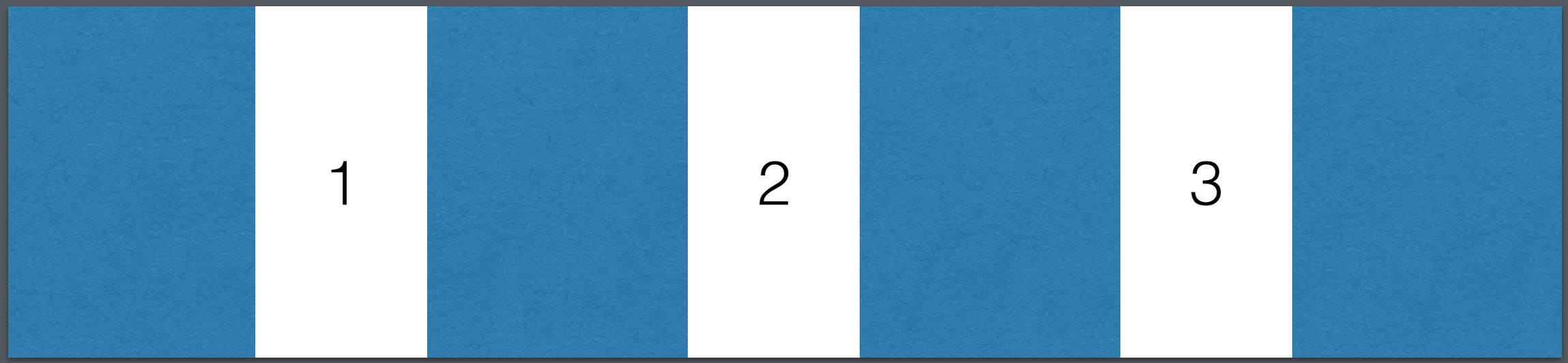
ALIGN-ITEMS



Aligns children by the middle baseline of the text in the child (note orange line)

```
align-items: baseline;
```

ALIGN-ITEMS



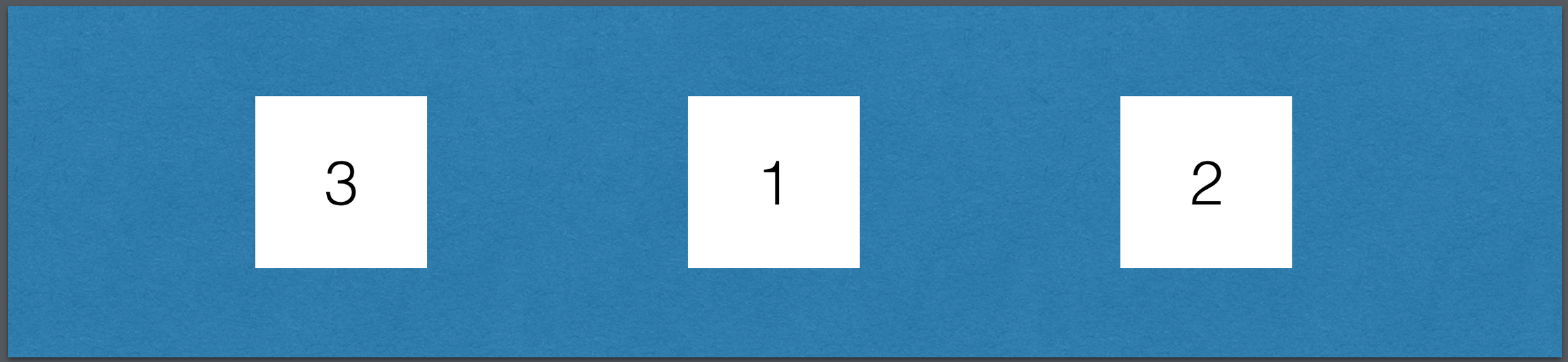
Stretches children to be the size of the container

```
align-items: stretch;
```

Flexbox
Parent
Children
Main Axis
Cross Axis
flex-direction
flex-wrap
justify-content
align-items
order
flex-grow
align-self

CHILDREN PROPERTIES

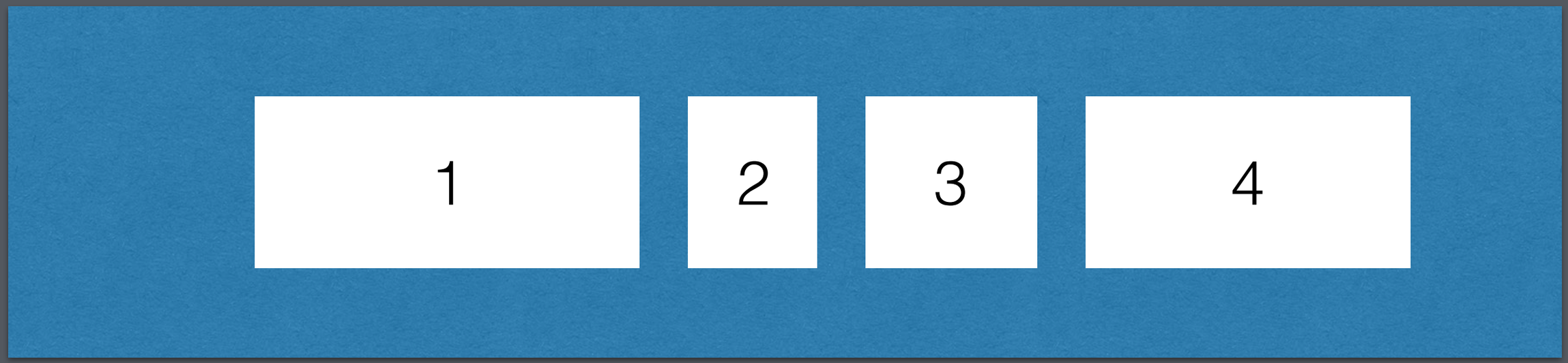
ORDER



Change the order in which children render within a row.

```
order: 3;
order: 1;
order: 2;
```

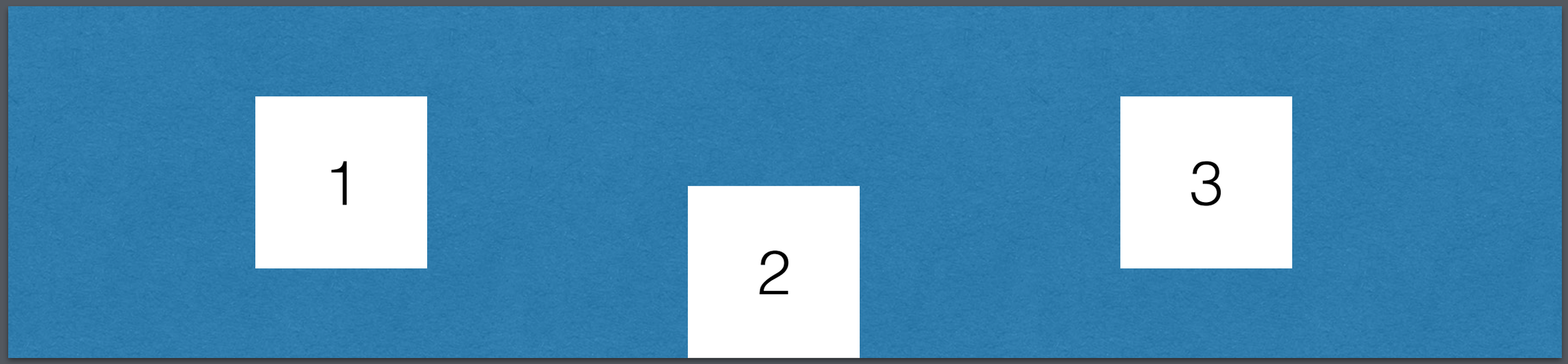
FLEX-GROW



Controls the rate at which individual children grow in width across viewports

```
flex-grow: 2;
flex-grow: 0.5;
flex-grow: 1;
```

ALIGN-SELF



Works like align-items but for an individual child, so you can override on a per-item basis.

```
align-self: flex-bottom;
```

Flexbox
Parent
Children
Main Axis
Cross Axis
flex-direction
flex-wrap
justify-content
align-items
order
flex-grow
align-self

YOUR TURN

Flexbox Froggy

FLEX-CEPTION?

FLEX within FLEX

YES YOU CAN

You can nest a flex container inside of a flex container - no problem.

YOUR TURN

Flex on Assignment #2