



**FLEXBOX**



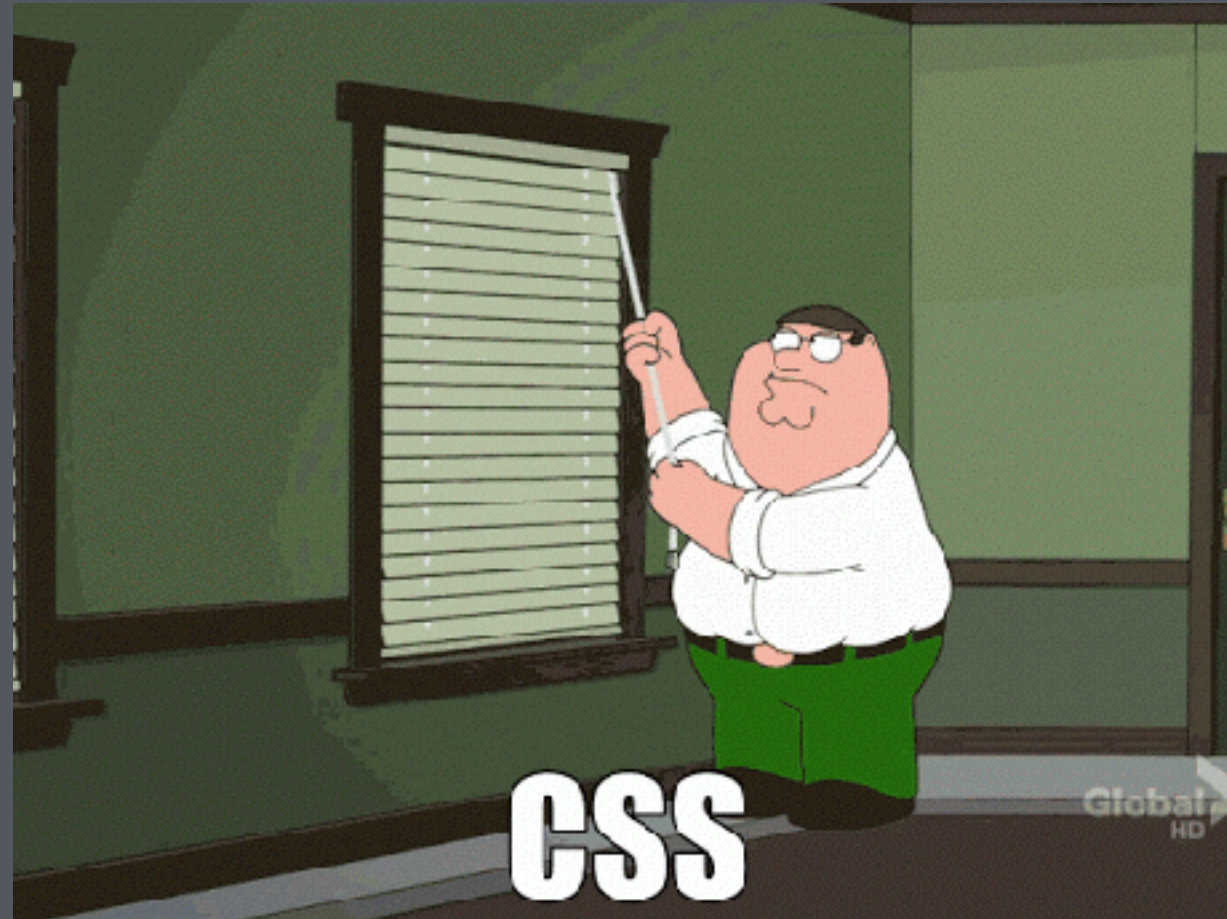
**BUT FIRST...**

# THE BIG REVIEW

Let's see how much you learned...

Complete assignment #1 during  
the first half of class.

# BACKGROUND



CSS layouts sometimes feel like you are fighting against the browser.

**WHERE HAVE YOU FELT  
LIMITED BY 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.



## Pasta 3

Carbs are out of favour with some, but pasta is low in fat and a good source of protein – 100g can contain 25 per cent of daily protein needs – making it a great choice for meals, as well as quick and easy night meals for the family.

## PERFECT PASTA

Bring water in a large saucepan to a rolling boil, add salt, then gradually add pasta. Stir and keep the water boiling fast to keep the pasta moving. Test by biting a piece of pasta. It is done when it is al dente – cooked through but still firm to bite. Before draining, reserve a little of the cooking liquid to use in whatever sauce you are making. Drain pasta using a colander. Do not rinse it – this removes flavour.

## ANGEL HAIR FRITTATA

PREP &amp; COOK TIME 30 MIN

- 100g angel hair pasta
- 1 tablespoon vegetable oil
- 1 small leek (200g), chopped finely
- 2 cloves garlic, crushed
- ¼ cup (20g) finely grated parmesan
- 200g feta, crumbled
- 60g spinach leaves, chopped coarsely
- ¼ cup (120g) sour cream
- ¼ teaspoon ground nutmeg
- 6 eggs, beaten lightly

1. Cook the pasta in a large pot of salted boiling water for 10 minutes. Drain and set aside. 2. Heat the oil in a 20cm ovenproof frying pan (see tip) over medium heat. Cook the leek and garlic for 5 minutes until softened. 3. Add the pasta, parmesan and half the feta, spinach and nutmeg. Stir well. 4. Pour the eggs over the mixture. Cook for 5 minutes until the edges are set. 5. Remove the cover from the pan and cook for about 5 minutes until the frittata is golden brown. 6. Top with the remaining feta and serve with a mixed leaf salad, if you like.

7. Remove the cover from the pan and cook for about 5 minutes until the frittata is golden brown. 8. Top with the remaining feta and serve with a mixed leaf salad, if you like. 9. TIP: The best is a frying pan with an ovenproof handle for this recipe. If the handle of your pan is not ovenproof, wrap it in two layers of foil before placing the pan under the grill. The frittata can be eaten hot, warm or at room temperature. It is not suitable to freeze.

## FLOATS

## WHICH PASTA, WITH WHICH SAUCE?

There are no hard and fast rules for matching sauces with pasta shapes, but a simple rule of thumb is the longer the pasta, the thinner the sauce; the shorter the pasta, the thicker or chunkier the sauce.

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.

# ALONG COMES FLEXBOX

CSS3 ushered in a new approach to improving CSS incrementally. Over about 3-4 years, flexbox finally settled out as the preferred method and has finally seen wide adoption as IE has declined in use.



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# HOW TO FLEXBOX

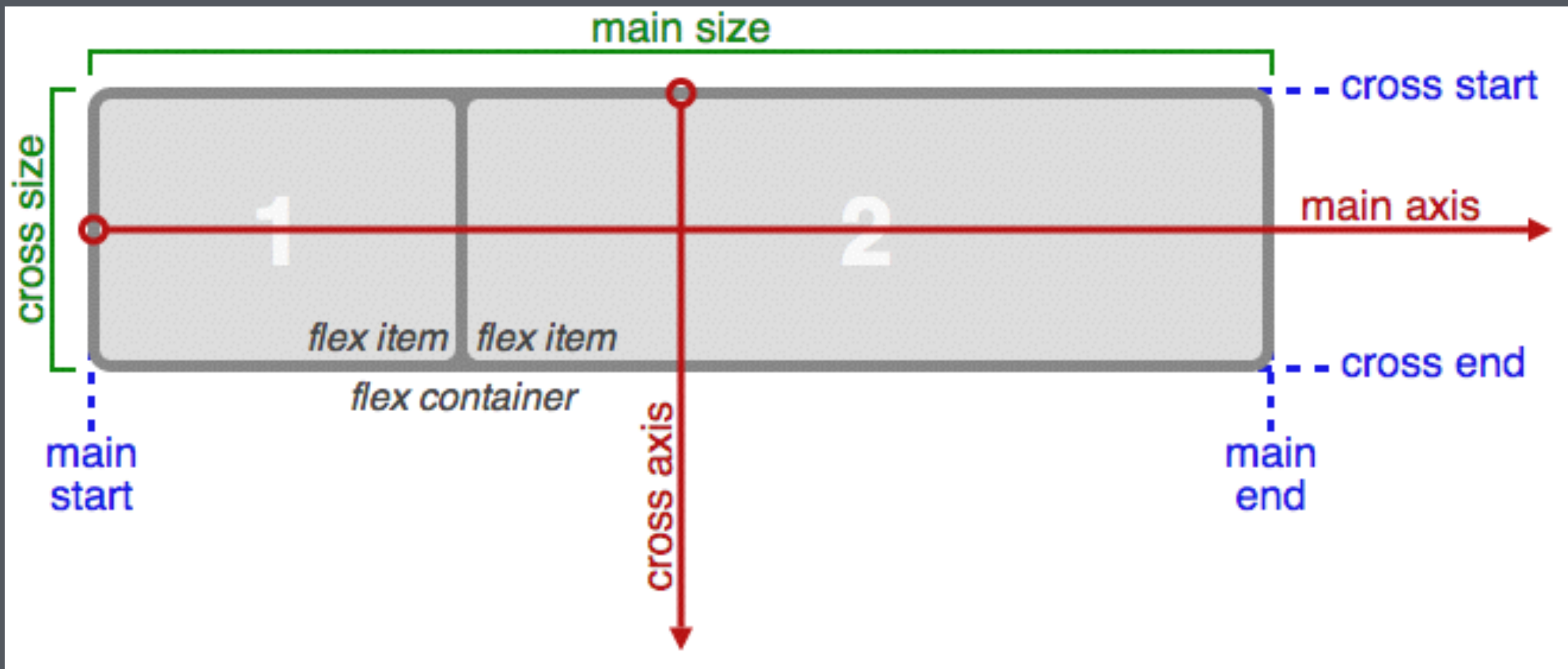
Easy to start, harder to use well

```
display: flex;
```



# HOW TO FLEXBOX

## Multi-axis alignment method

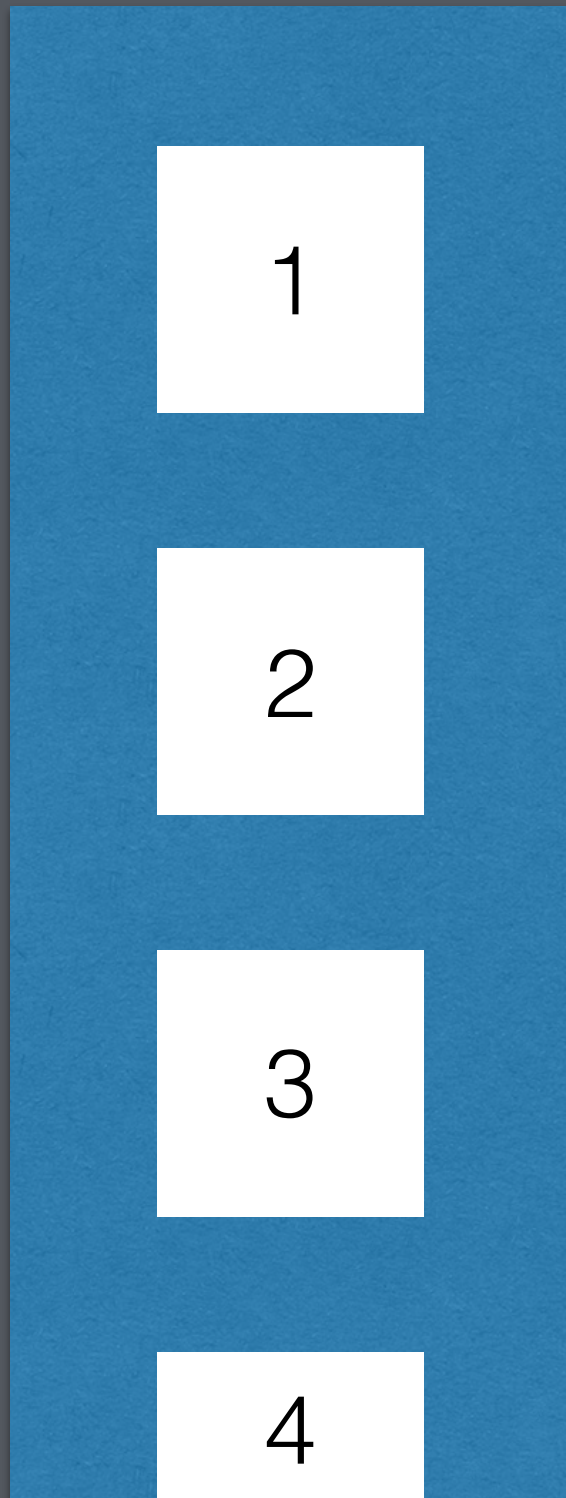


# REFERENCE

## Assignment #2



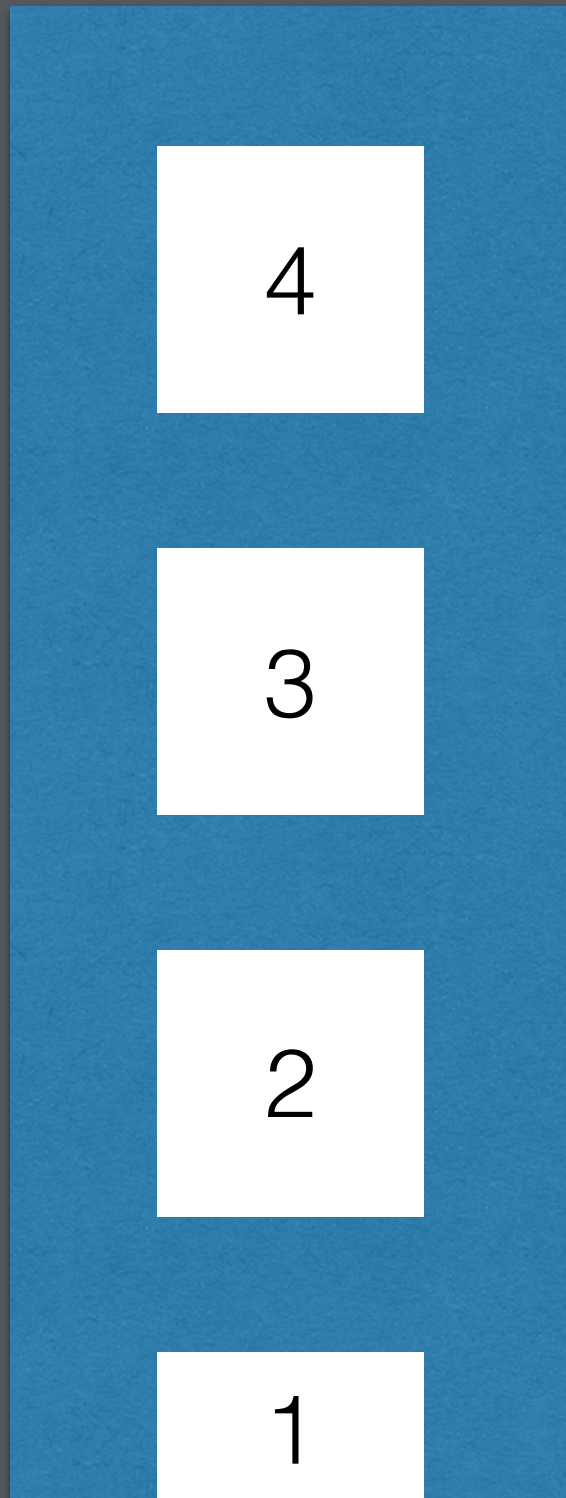
# FLEX-DIRECTION



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

1

2

3

4

5

You can also do layouts in a row.

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

# FLEX-DIRECTION

5

4

3

2

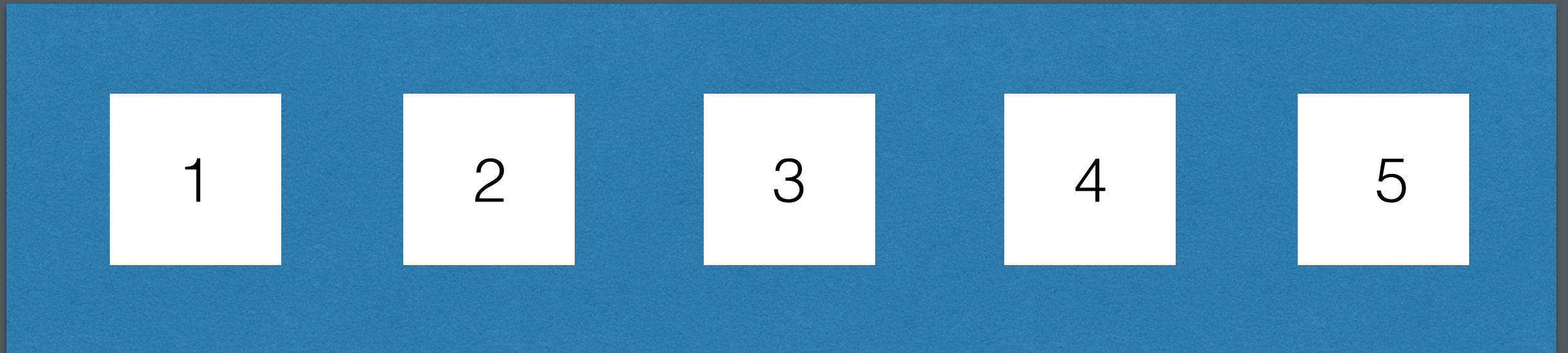
1

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

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



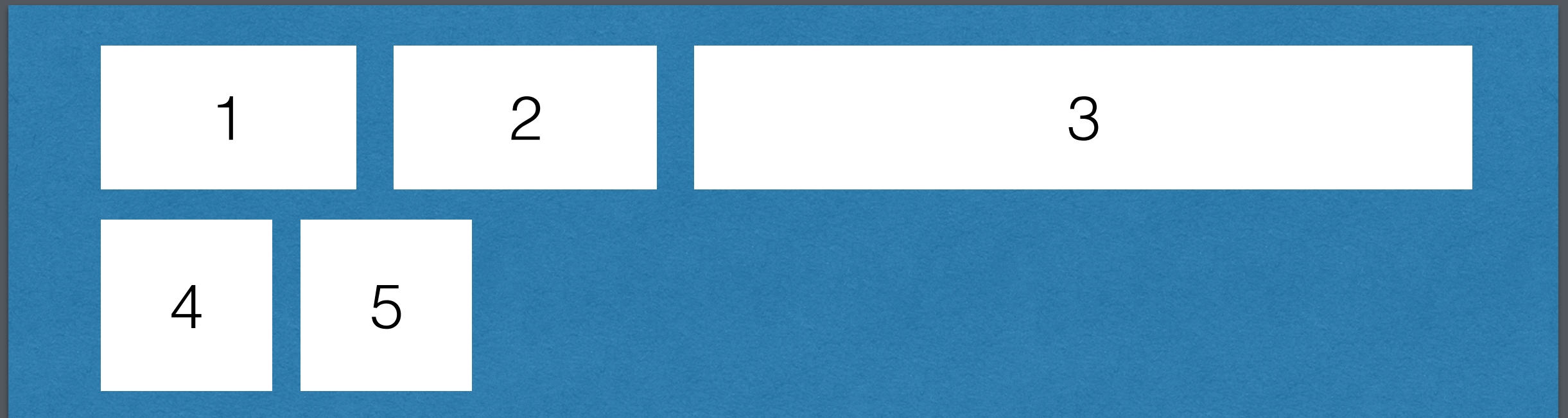
# FLEX-WRAP



By default, all boxes are stuffed into one row.

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

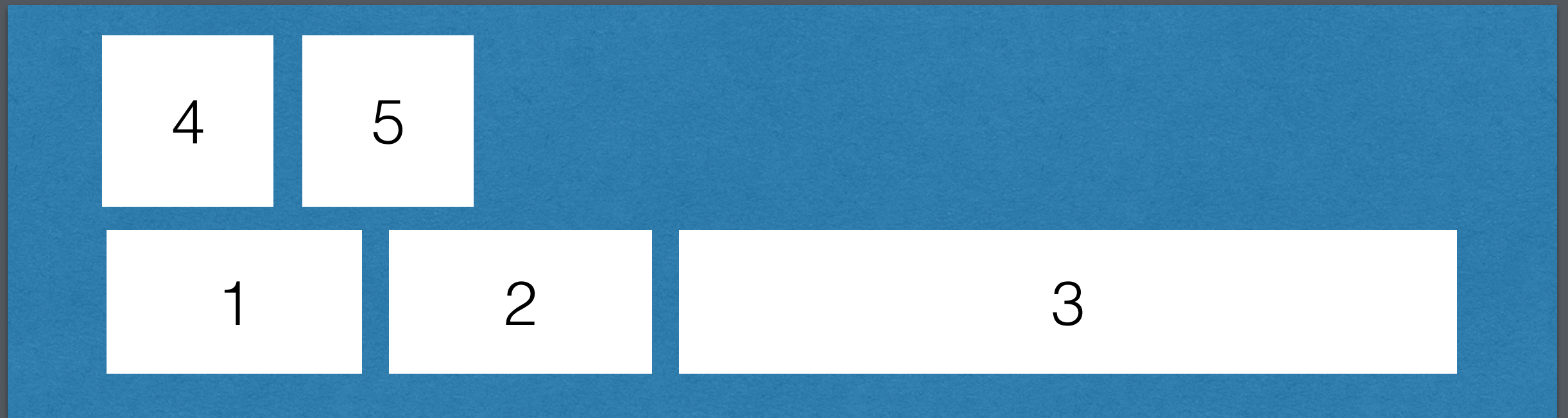
# FLEX-WRAP



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

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

# FLEX-WRAP

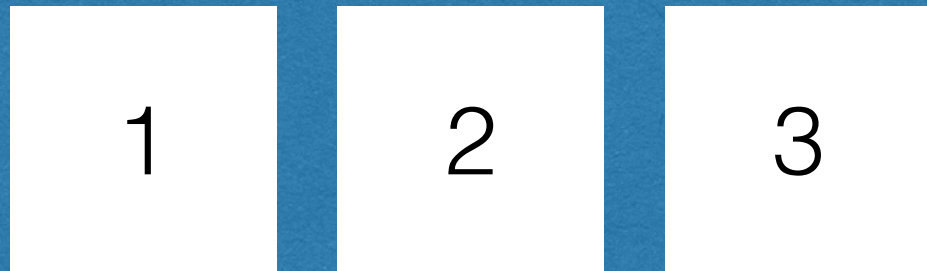


They can display right to left as well and bottom-to-top (I find this very confusing personally and don't use it).

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



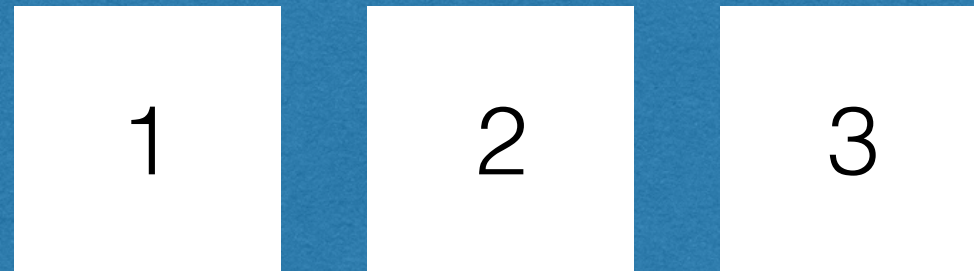
# JUSTIFY-CONTENT



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



1

2

3

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

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



# JUSTIFY-CONTENT

1

2

3

Pushes stuff as far apart as possible.

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

# JUSTIFY-CONTENT

1

2

3

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

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

# **ALIGN-ITEMS**

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



# CODEALONG

## Assignment #2

# NEXT TIME

Sass mostly - this will be a challenge...  
Keep working on Final Projects!