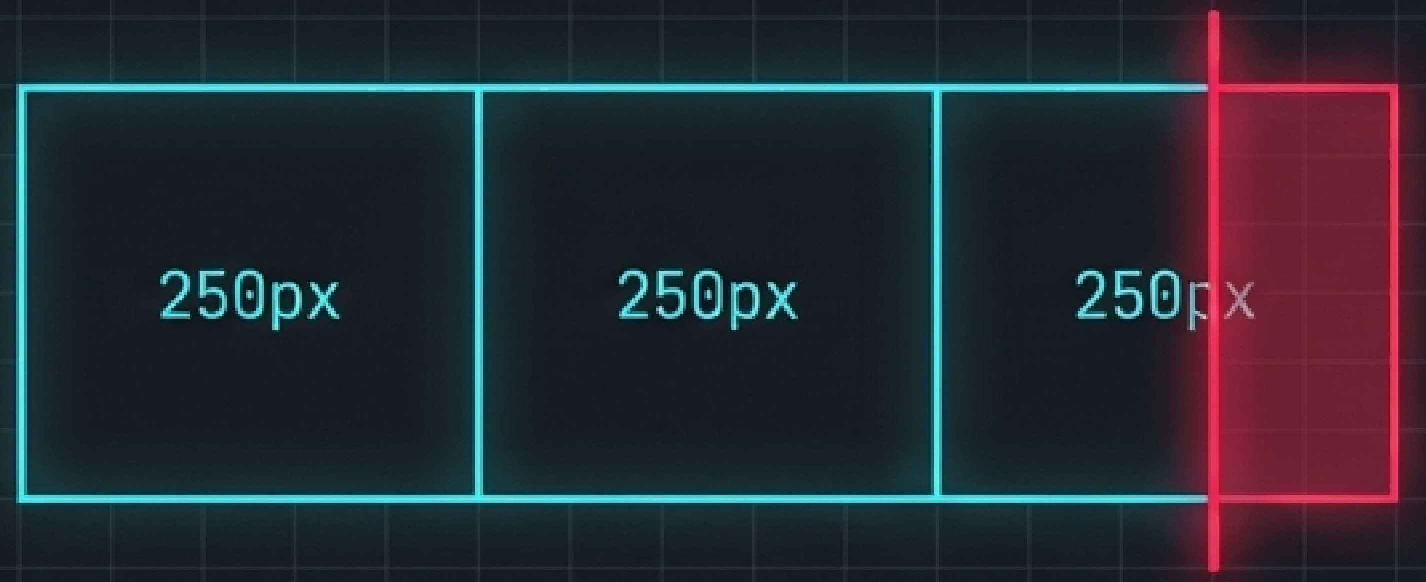
Fractional Units (fr)

The Unit That Makes Grid Feel Alive

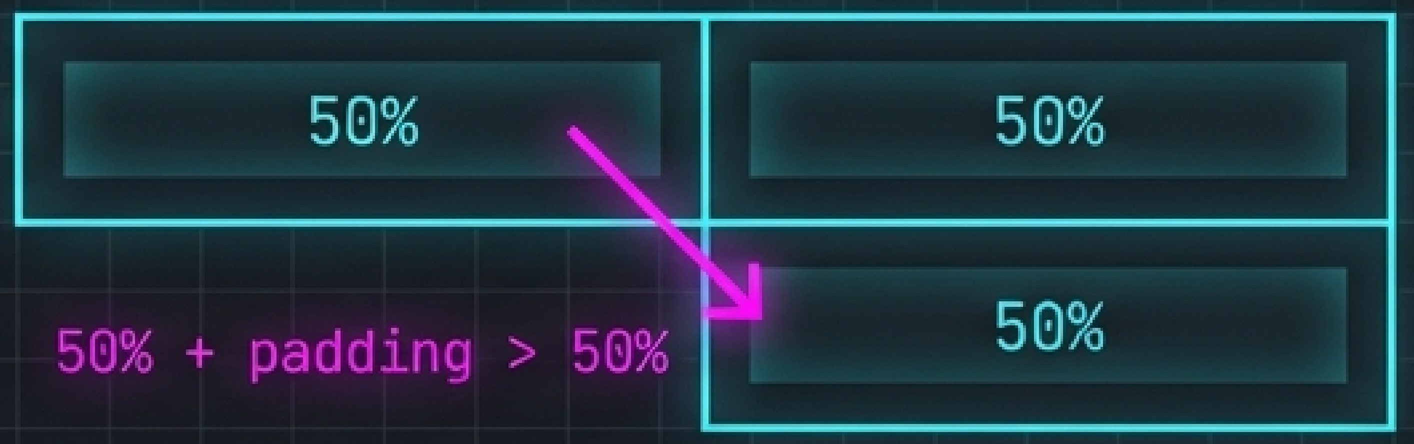
The Old Guard: Rigid & Fragile

Pixels are rigid.



```
grid-template-columns: 250px 250px 250px;
```

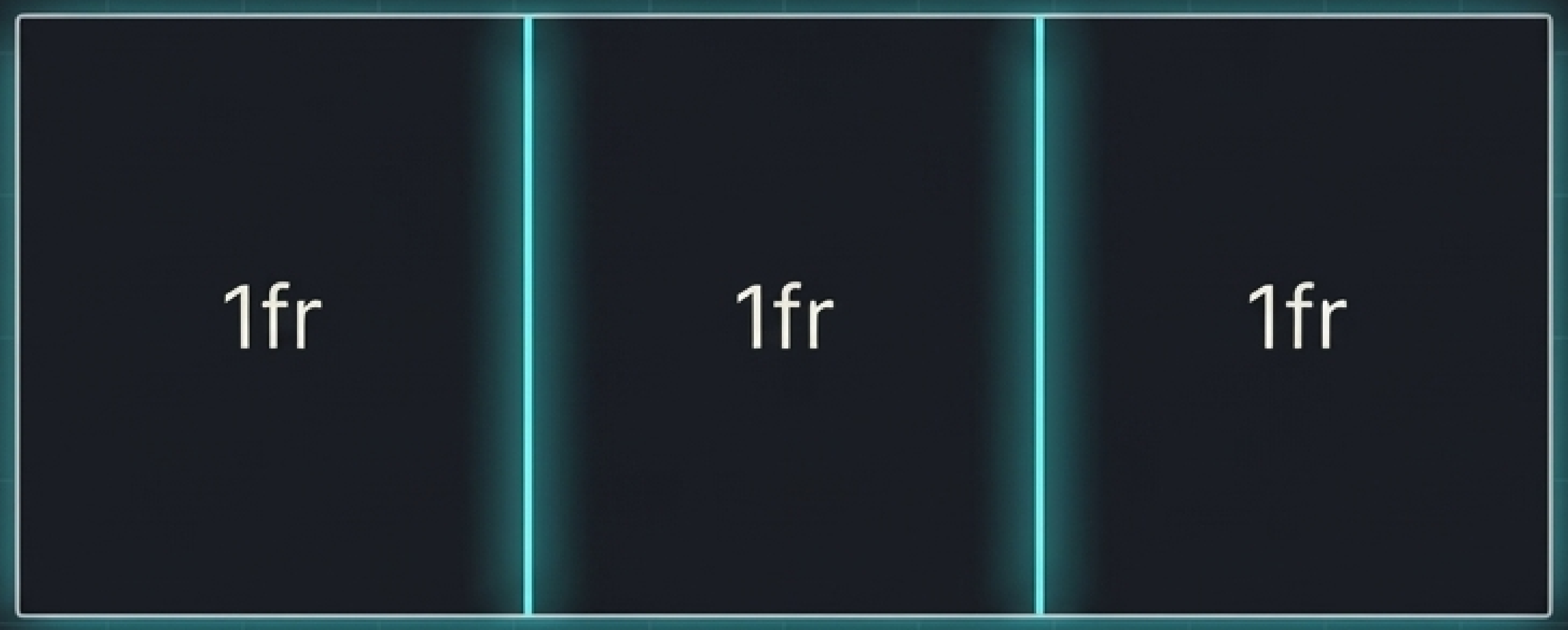
Percentages are fragile.



```
grid-template-columns: 50% 50%;
```

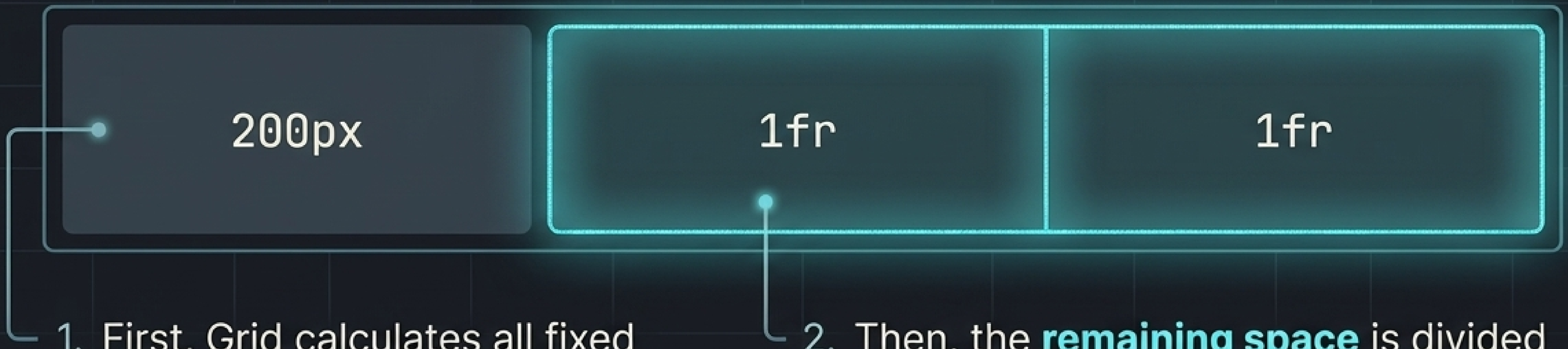
Grid’s Native Power Move

The `fr` unit represents a **fraction of the available space** in the grid container.



```
grid-template-columns: 1fr 1fr 1fr;
```

How `fr` Claims Space



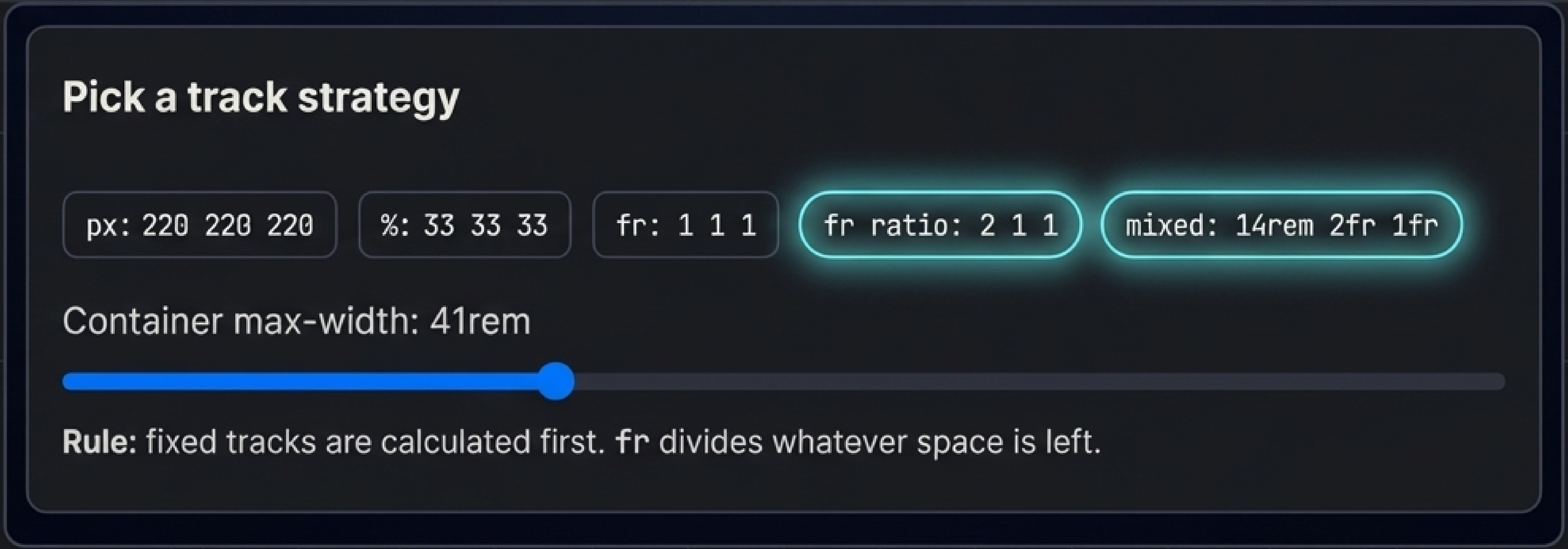
1. First, Grid calculates all fixed tracks (`px`, `rem`, `%`, etc.).

2. Then, the **remaining space** is divided proportionally among the `fr` tracks.

Rule: fixed tracks are calculated first. `fr` divides whatever space is left.

Fraction Wars: A Layout Battle

Let’s test different track strategies to see which layouts adapt gracefully.



Pick a track strategy

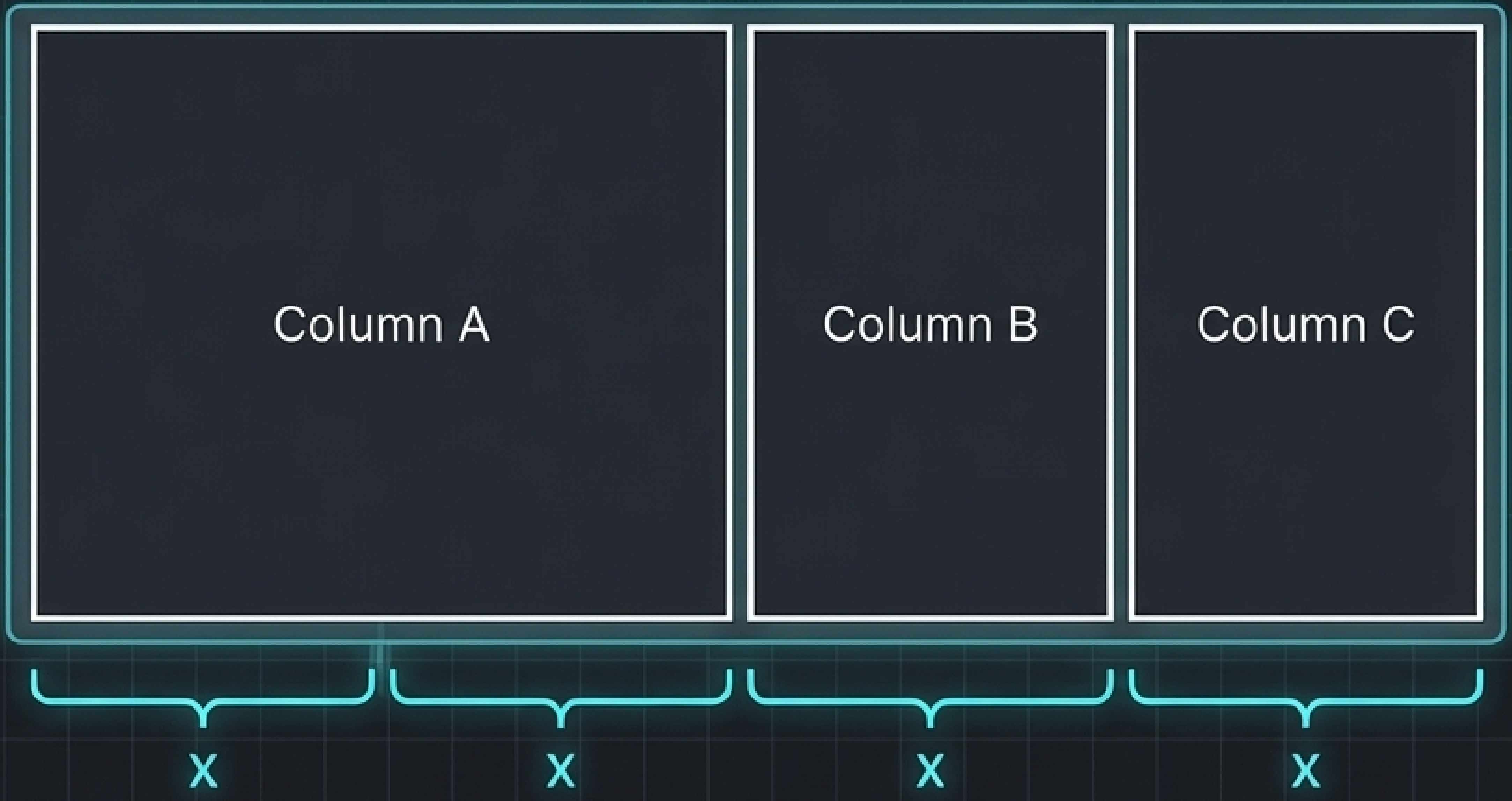
`px: 220 220 220` `%: 33 33 33` `fr: 1 1 1` [✓ `fr ratio: 2 1 1`] [✓ `mixed: 14rem 2fr 1fr`]

Container max-width: 41rem

Rule: fixed tracks are calculated first. `fr` divides whatever space is left.

Strategy: Relative Ratios

```
grid-template-columns: 2fr 1fr 1fr;
```

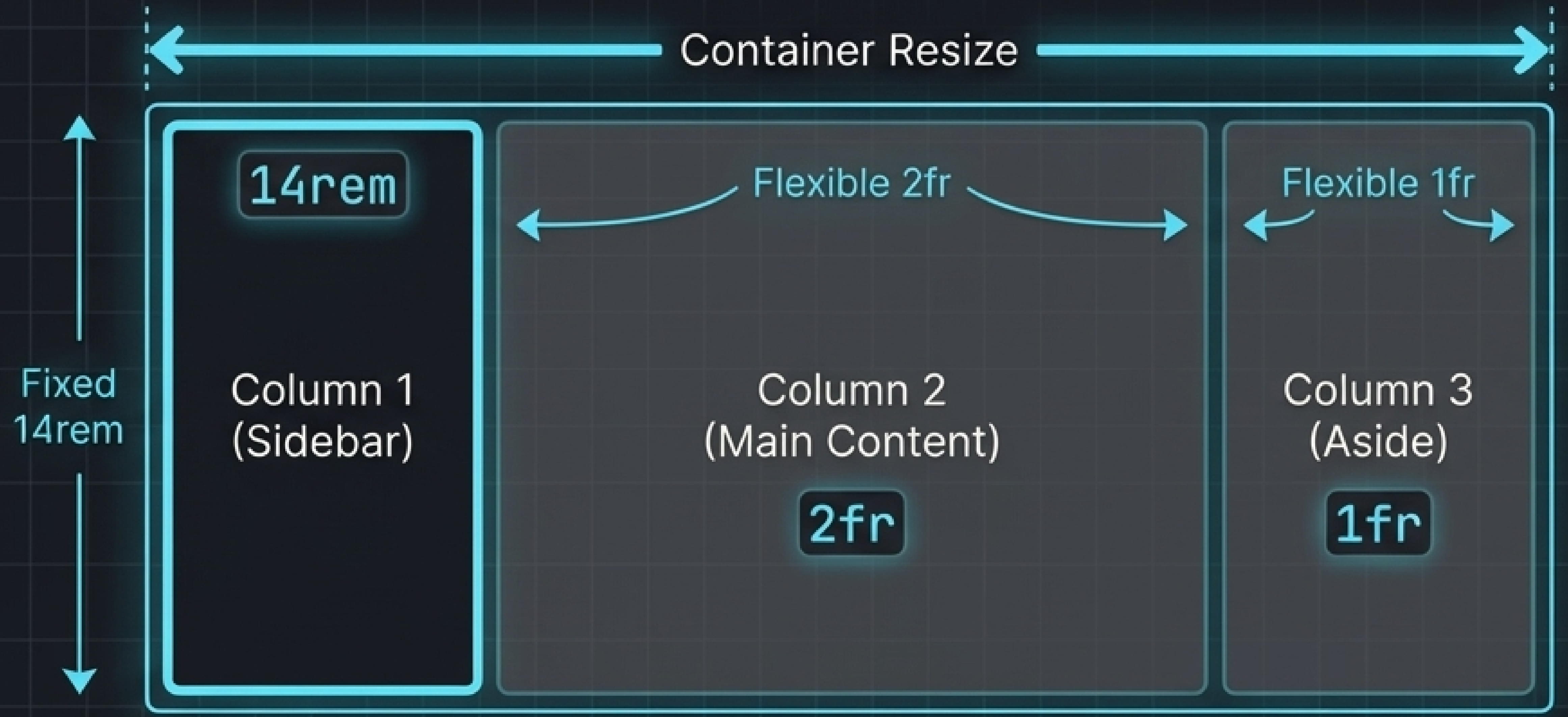


Fractions are relative. A `2fr` track will always be twice the size of a `1fr` track ***within the same calculation***. It's not about being equal; it's about **proportion**.

NotebookLM

Strategy: Mixing Fixed & Flexible

```
grid-template-columns: 14rem 2fr 1fr;
```



This is the ultimate **power move**. Define intrinsically sized columns with fixed units and let `fr` handle the rest. Perfect for sidebars and main content layouts.

The Winning Strategy

Pixels Define.

Use for elements with a known, intrinsic size.

Fractions Adapt.

Use for elements that should fill the remaining space.

Flexible layout without math anxiety.

p.s., keep learning!