# ggtex

grammar of graphics for tex tables

## Idea

Modularize LaTeX tabular environments to grammar of graphics style operations. This will create an abstract mechanism to manipulate and combine tables.

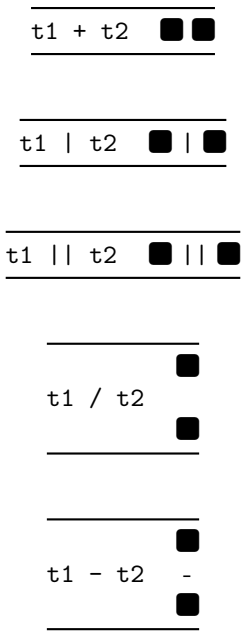
This would enable us to create any table layout with a consistent user API.

## Proposed Syntax

Defining a new class of R element `tabular` that is the basic structure of the language.

### Joining elements

Let `t1` and `t2` be two objects of class tabular.




Using this language creating a table can be broken down to cell level

`t1 =(■+■+■) / (■+■+■)`

would be translated to

```
1 & 2 & 3 \\
4 & 5 & 6
```

`t2 = (■+■+■) - (■+■+■)`

would be translated to

```
7 & 8 & 9 \\ \hline
10 & 11 & 12
```

making their combination a natural extension

```
t1 + t2
```

would translate to

```
1 & 2 & 3 & 7 & 8 & 9 \\ cline{4-6}
4 & 5 & 6 & 10 & 11 & 12
```

### Mutations

A set of mutation verbs can be defined to mainpulate within table actions, eg

- multirow
- multicolumn

### Aesthetics

A set of aesthetic elements can be defined to control the table and cell level attributes, eg

- font: colour, size, face
- background colour