RMarkdown and Latex

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R Markdown

You can use LaTeX to type equations in RMarkdown.

Basic modes are inline (so called `$latex`) and the equation model (`$$latex`)

Inline mode

You can write inline what you want with (one) dollar signs like this $x_1 = x_2^2$.

(this is done by `$x_{1} = x_{2}^{2}$`, one dollar sign on sides)

Equation model

When you want an equation on a separate line, you can do this (two dollar signs on sides):

$$x_1 = x_2^2$$

(this is done by `$$x_{1} = x_{2}^{2}$$`, two dollar signs)

Basics of LaTeX

1. Grouping is done by using curly brackets { } ($\{\cdot\}$)
2. Subscripts and superscripts are by underscore (_) and caret (^) x_1, y^2, s_{12}, s_{12}^{34} (see grouping above, `$x_1$`, `$y^2$`, `$s_{12}$`, `$s_{12}^{34}$`)

3. Greek letters are as you would expect α, β, σ^2, ε, `$\alpha$`, `$\beta$`, `$\sigma^2$`, `$\varepsilon$`
4. Fractions are done by `\frac{numerator}{denominator}`, i.e., $\frac{y^2}{x^2}$, `$\frac{y^2}{x^2}$`
5. Sum and integral, product, and E is `\sum, \int,\prod, E`, $\sum_{i=1}^{n} x^2$, `$\sum_{i=1}^{n} x^2$`
6. Infinity is `\infty` ∞, $-\infty$, `$\infty$`, `$-\infty$`
7. Brackets are either brackets or with `\left( \right)` (don't worry about this one)
8. You can combine it:

$$\sum_{i=1}^{3} \left(\int_{-\infty}^{\infty} x_i^2 \right) dx_i = \sum_{i=1}^{3} \frac{x_i^2}{i}$$

```
solution <- 10
```

The solution is 10.

Online editor

Online editor where you can try it right now:

https://www.codecogs.com/latex/eqneditor.php

References

https://www.stat.pitt.edu/stoffer/freetex/latex%20basics.pdf

https://www.cs.princeton.edu/courses/archive/spr10/cos433/Latex/latex-guide.pdf

http://www.calvin.edu/~rpruim/courses/m343/F12/RStudio/LatexExamples.html

https://www.codecogs.com/latex/eqneditor.php