An Introduction to LaTeX

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1 Introduction

This document is an introduction to the use of LaTeX. We will show how to use LaTeX to produce most things which would be needed in a short report. We will show how to produce tables, include figures and typeset some simple mathematics.

2 Typesetting

2.1 Changing Text Formats

I had a bowl of **cereal** for breakfast and a *sandwich* for lunch.

2.2 Creating Lists

2.2.1 Itemize

- Baseball
- Basketball
- Cricket

2.2.2 Enumerate

For dinner last night, I had:

1. Pasta with Arrabiata Sauce
2. Garlic Bread

3 Mathematics

$$a = (b + c)^d \tag{1}$$

Add a and b to get c, or written more formally $a + b = c$.
Add a and b to get c, or written more formally

$$a + b = c. \tag{2}$$

Name	Exam 1	Exam 2
Bob Smith	43	81
Anne Frank	75	70

7

Table 1: Exam Marks

$$\frac{\frac{1}{x} + \frac{1}{y}}{z}$$

$$x^a x^b = x^{a+b}$$

$$\int_{x^2<1} f(x)dx$$

$$\forall \in \mathbf{R} : x^2 \geq 0$$

$$\begin{aligned} f(x) &= (x-a)(x+a) \\ &= x^2 - ax + ax - a^2 \\ &= x^2 - a^2 \end{aligned}$$

$$\begin{pmatrix} 3 & 1 \\ 9 & 2 \end{pmatrix}$$

4 Figures

File was unavailable, more information regarding figures and editing captions etc. from R plot .pdfs is available in the LaTeX notes.

5 Tables

Exam marks 2 file was unavailable, come back to this later!

6 Labelling

We previously mentioned equation 2 in section 3

7 Citations

References

Baxevani, A., Rychlik, I. and Wilson, R. (2005). A new method for modelling the space variability of significant wave height, *Extremes*, **8**: 267–294.

8 Complex Tables

Fell race	Data		
	dist	climb	time
Greenmantle	2.5	650	16.083
Carnethy	6.0	2500	48.350
Craig Dunain	6.0	900	3.650