Maths Book Example using Latex

Author Names

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Contents

Chapter 1

One

1.1 First section: Maths

Grec Letters:

$$\alpha \text{and} \beta \tag{1.1}$$

$$e^{\pi i} + 1 = 0 \tag{1.2}$$

The beautiful equation 1.2 is known as the Euler equation.

Square root:

$$\sqrt[n]{1 + x + x^2 + x^3 + \cdots + x^n} \tag{1.3}$$

Sum:

$$\sum_{i=1}^{10} t_i \tag{1.4}$$

Formulas:

$$\cos(2\theta) = \cos^2 \theta - \sin^2 \theta \tag{1.5}$$

Limits:

$$\lim_{x \to \infty} \exp(-x) = 0 \tag{1.6}$$

Delimiter:

$$\left. \frac{x^3}{3} \right|_0^1 \tag{1.7}$$

Equation:

$$x = a_0 + \cfrac{1}{a_1 + \cfrac{1}{a_2 + \cfrac{1}{a_3 + \cfrac{1}{a_4}}}} \tag{1.8}$$

1.2   Second section: Tables

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1	2	3
3	4	6

1	2	3
4	5	6
7	8	9

1	2	3
4	5	6
7	8	9

With width specified:

Day	Min Temp	Max Temp	Summary
Monday	11C	22C	A clear day with lots of sunshine. However, the strong breeze will bring down the temperatures.
Tuesday	9C	19C	Cloudy with rain, across many northern regions. Clear spells across most of Scotland and Northern Ireland, but rain reaching the far northwest.
Wednesday	10C	21C	Rain will still linger for the morning. Conditions will improve by early afternoon and continue throughout the evening.

1.3   Third section: Matrix

This will display a first matrix into an equation:

$$\begin{matrix} a & b & c \\ d & e & f \\ g & h & i \end{matrix} \tag{1.9}$$

$$A_{m,n} = \begin{pmatrix} a_{1,1} & a_{1,2} & \cdots & a_{1,n} \\ a_{2,1} & a_{2,2} & \cdots & a_{2,n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m,1} & a_{m,2} & \cdots & a_{m,n} \end{pmatrix} \tag{1.10}$$

$$M = \begin{bmatrix} \frac{5}{6} & \frac{1}{6} & 0 \\ \frac{5}{6} & 0 & \frac{1}{6} \\ 0 & \frac{5}{6} & \frac{1}{6} \end{bmatrix} \tag{1.11}$$

1.4   Fourth Section: Cite

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1.5   Fifth Section: Figures

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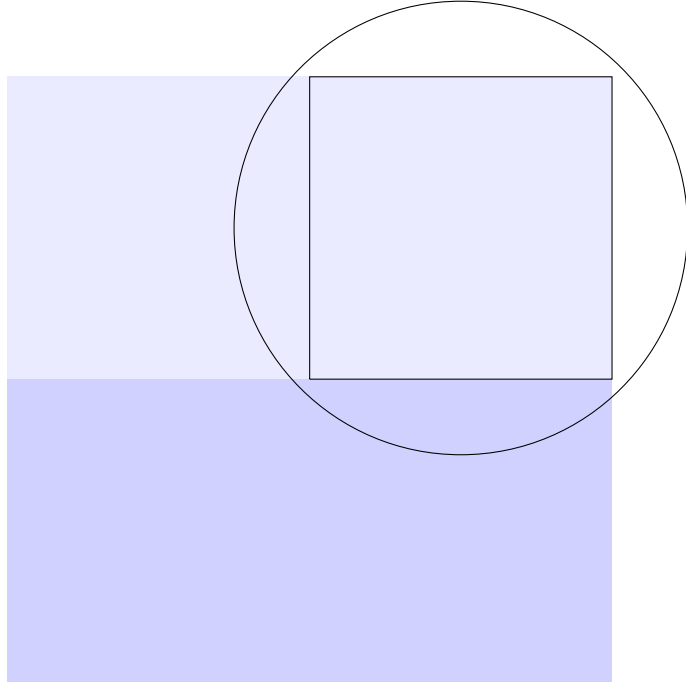below which is Fig. 1.2.

Figure 1.1: The first figure using tikz

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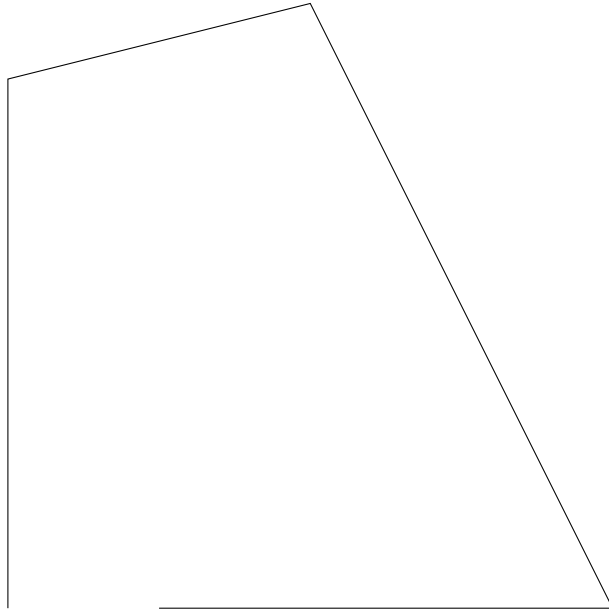
Figure 1.2: The second simple figure using tikz

Bibliography

[1] M. Spok, "My article (author 1)," 2006.

[2] M. Puffi, "My article (author 2)," 2006.

[3] M. Puf, "My article (author 6)," 2006.