1 Mathematics

1.1 Inline formulas

Inline formula: $a^2 + b^2 = \sqrt{c}$. The formula is part of text. Another possibility: $\int_a^b \sin(x)dx$. Yet another possibility:

1.2 Sub- and superscript

a_{bc}, a_{bc} a^{bc}, a^{bc} $_a^b\prod_c^d$

$a_{\text{Some Text}}$

$a^{\text{Some Text}}$

a_{SomeText}

$a_{\text{Some Text}}$

$abcde$

1.3 Fractions

$\frac{a+b}{c+d}$

$$\frac{a+b}{c+d}$$

$$\frac{a+b}{c+d}$$

$$\frac{a+b}{c+d}$$

1.4 Binomia

$\binom{a+b}{c+d}$

$$\binom{a+b}{c+d}$$

$$\binom{a+b}{c+d}$$

$$\binom{a+b}{c+d}$$

1.5 General factions

$$\left\{\overset{numerator}{\underset{denominator}{\rule{2cm}{0.3cm}}}\right\}\left\{\frac{numerator}{denominator}\right\}\left\{\frac{numerator}{denominator}\right\}$$

1.6 Continued fractions

$$\cfrac{1}{1+\cfrac{1}{1+\cfrac{1}{1+\frac{1}{1}}}}$$

1.7 Basic objects

- Operators: mathop

- Binary Operators: mathbin

- Relation symbols: mathrel

- Brackets: mathopen, mathclose

- Punctuation symbol: mathpunct

- Parts of formula: mathinner

$$\mathrm{sgn}(a \cdot b) \quad = \quad \mathrm{sgn}(a) \cdot \mathrm{sgn}(b) \tag{1}$$

$$A \quad = \quad \left(3 \times 3\right) \qquad \mathrm{Tr}_i(A) = \sum_{i=1}^{3} A_{i,j} \tag{2}$$

$$A \, \rho \begin{pmatrix} a & b \\ c & d \end{pmatrix} \qquad \leftrightarrow \qquad A\rho(\begin{smallmatrix} a & b \\ c & d \end{smallmatrix})$$

1.8 Objects below/above each

$f(x) \stackrel{?}{=} g(x)$

$$\sum_{\substack{i=1 \\ i \neq j}}^{\infty} x_i$$

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1.9 'Over' and 'under' symbols

$\overline{v} \, \underline{v} \quad \overbrace{x+y}^{\text{superscript}}$

2 Tables

2.1 Tabbing text

read(value)
if vaule < 0
  then print("Are you sure?")
  else if value=0
      then stop
    fi
fi

2.2 Basic tables

Blah blah ——	aaa this is a column with a given width e	bbb === ccc ddd —— Meow - meow
		f === gh