

Inline (within text) formulas

The equation $x + x = 2x$ is inside a text, which uses the \TeX shorthand. In addition, an equation can be written like $x \cdot x = x^2$ as well, using the \LaTeX shorthand. Finally, the environment *math* can be used like this $a^2 + b + c = 0$.

We can force symbols to be displayed like displayed formula. For example the formula $\sum_{k=0}^{10} k$ can be written $\sum_{k=0}^{10} k$ as well. The sum symbol is taller within a sentence using the command \displaystyle .

Displayed equations

The recommended syntax to render a floating equation is to use the syntax below.

$$a \cdot x = ax$$

The use of the syntax $\$ \cdot \$$ should be avoided, because, it will modify vertical spacing within equations, rendering them inconsistent.

Finally, the environment *displaymath* produces the same effect.

$$x^2 \cdot x^2 = x^4$$

Style of equations

Several symbols such as the sum or an integral can be rendered differently, depending on whether this is an inline or displayed formula. We can force the rendering of the different styles with some specific commands. The table 1 summaries the commands with a concrete examples.

	\displaystyle	\textstyle
\nolimits	$\sum_{k=0}^n k$	$\sum_{k=0}^n k$
\limits	$\sum_{k=0}^n k$	$\sum_{k=0}^n k$

Table 1: Summary of commands and styling

Other styling commands can be applied instead of *displaystyle* or *textstyle*, such as *scriptstyle* or *scriptscriptstyle*.