

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 $\mathbb{S}\mathbb{S}\cdots\mathbb{S}\mathbb{S}$ should be avoided, because, it will modify vertical spacing within equations, rendering them inconsistent.

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

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

Equation numbering

The environment *equation* automatically numbers the equations.

$$f(x) = (x + a)(x + b) \tag{1}$$