The **proof** package*

Proof figure macros

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Nov 24, 2005

1 Usage:

In `\documentstyle`, specify an optional style '`proof`', say, `\documentstyle[proof]{article}`.

The following macros are available:

In all the following macros, all the arguments such as ⟨*Lowers*⟩ and ⟨*Uppers*⟩ are processed in math mode.

`\infer{`⟨*Lower*⟩`}{`⟨*Uppers*⟩`}` draws an inference.

> Use `&` in ⟨*Uppers*⟩ to delimit upper formulae. ⟨*Uppers*⟩ consists more than 0 formulae.
>
> `\infer` returns `\hbox{ ... }` or `\vbox{ ... }` and sets `\@LeftOffset` and `\@RightOffset` globally.

`\infer[`⟨*Label*⟩`]{`⟨*Lower*⟩`}{`⟨*Uppers*⟩`}` draws an inference labeled with ⟨*Label*⟩.

`\infer*{`⟨*Lower*⟩`}{`⟨*Uppers*⟩`}` draws a many step deduction.

`\infer*[`⟨*Label*⟩`]{`⟨*Lower*⟩`}{`⟨*Uppers*⟩`}` draws a many step deduction labeled with ⟨*Label*⟩.

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*This manual corresponds to proof.sty v3.1 (for both LaTeX 2.09 and LaTeX 2_ε), dated Nov 24, 2005.

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`\infer={`⟨*Lower*⟩`}{`⟨*Uppers*⟩`}` draws a double-ruled deduction.

`\infer=[`⟨*Label*⟩`]{`⟨*Lower*⟩`}{`⟨*Uppers*⟩`}` draws a double-ruled deduction labeled with ⟨*Label*⟩.

`\deduce{`⟨*Lower*⟩`}{`⟨*Uppers*⟩`}` draws an inference without a rule.

`\deduce[`⟨*Proof*⟩`]{`⟨*Lower*⟩`}{`⟨*Uppers*⟩`}` draws a many step deduction with a proof name.

2 Example:

If you want to write

$$\dfrac{A \qquad \dfrac{B \quad C}{D}}{E}$$

use

```
\infer{E}{
  A
  &
  \infer{D}{B & C}
}
```