Mathematical Example Module

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The source for this document can be found here:

http://qedeq.org/0_03_09/sample/predlogic.xml

If you have any questions, suggestions or want to add something to the list of modules that use this one, please send an email to the address mailto:mime@qedeq.org

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Chapter 1

Predicate Logic

Here are some predicate logic propositions.

1.1 Simple Formulas

These are the first ones.

Proposition 1.1.

$$\forall x\ (\phi(x)\ \rightarrow\ \psi(x))\ \rightarrow\ (\forall x\ \phi(x)\ \rightarrow\ \forall x\ \psi(x)) \qquad \text{(a)}$$
$$\forall x\ (\phi(x)\ \rightarrow\ \psi(x))\ \rightarrow\ (\exists x\ \phi(x)\ \rightarrow\ \exists x\ \psi(x)) \qquad \text{(b)}$$

We define a predicate constant of arity two that shall stand for the identity of subjects.

Initial Definition 1.2 (Identity)**.**

$$x\ =\ y$$

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