

# AXIOMS OF PREDICATE CALCULUS

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ABSTRACT. This module contains the axioms of predicate calculus. The following quantification axioms and these of [propositional calculus](#) (together with some rules) allow the deduction of all theorems of predicate calculus. To learn about possible conclusions click through the following ‘. used by.’ list.

This file is part of the project ‘Principia Mathematica II’ see [project homepage](#).

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## MODULE SPECIFICATION

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This module has the following specification:

Name: predaxiom  
Version: 1.00.00  
Rule version: 1.00.00  
Origin: [http://www.meyling.com/principia/0\\_00\\_51/predaxiom\\_1.00.00\\_1.00.00.qedeq](http://www.meyling.com/principia/0_00_51/predaxiom_1.00.00_1.00.00.qedeq)

Is used by the following modules:

Name: predtheo1  
Version: 1.00.00  
Rule version: 1.00.00  
Origin: [predtheo1\\_1.00.00\\_1.00.00.qedeq](#)  
pdf: [predtheo1\\_1.00.00\\_1.00.00.pdf](#)  
Name: predtheo2  
Version: 1.00.00  
Rule version: 1.00.00  
Origin: [predtheo2\\_1.00.00\\_1.00.00.qedeq](#)  
pdf: [predtheo2\\_1.00.00\\_1.00.00.pdf](#)  
Name: predtheo2  
Version: 1.00.00  
Rule version: 1.02.00  
Origin: [predtheo2\\_1.00.00\\_1.02.00.qedeq](#)

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*Date:* 2002-07-27T20:56:02.

pdf: [predtheo2\\_1.00.00\\_1.02.00.pdf](#)

Axiom of Specialization:

**Axiom 0.1.**

$$(\exists x(R(x)) \Rightarrow R(y))$$

**Axiom 0.2.**

$$(R(y) \Rightarrow \forall x(R(x)))$$

**Rule Declaration 0.1.** *Rename Bound Variable*

For an explanation see [rename bound variable](#)

**Rule Declaration 0.2.** *Rename Free Variable*

For an explanation see [rename free variable](#)

**Rule Declaration 0.3.** *Particularize*

For an explanation see [rename predicate variable](#)

**Rule Declaration 0.4.** *Particularize*

For an explanation see [particularization](#)

**Rule Declaration 0.5.** *Generalize*

For an explanation see [generalization](#)

This module used by the following modules:

Name:	predtheo1
Version:	1.00.00
Rule version:	1.00.00
Origin:	<a href="#">predtheo1_1.00.00_1.00.00.qedeq</a>
pdf:	<a href="#">predtheo1_1.00.00_1.00.00.pdf</a>
Name:	predtheo2
Version:	1.00.00
Rule version:	1.00.00
Origin:	<a href="#">predtheo2_1.00.00_1.00.00.qedeq</a>
pdf:	<a href="#">predtheo2_1.00.00_1.00.00.pdf</a>
Name:	predtheo2
Version:	1.00.00
Rule version:	1.02.00
Origin:	<a href="#">predtheo2_1.00.00_1.02.00.qedeq</a>
pdf:	<a href="#">predtheo2_1.00.00_1.02.00.pdf</a>

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