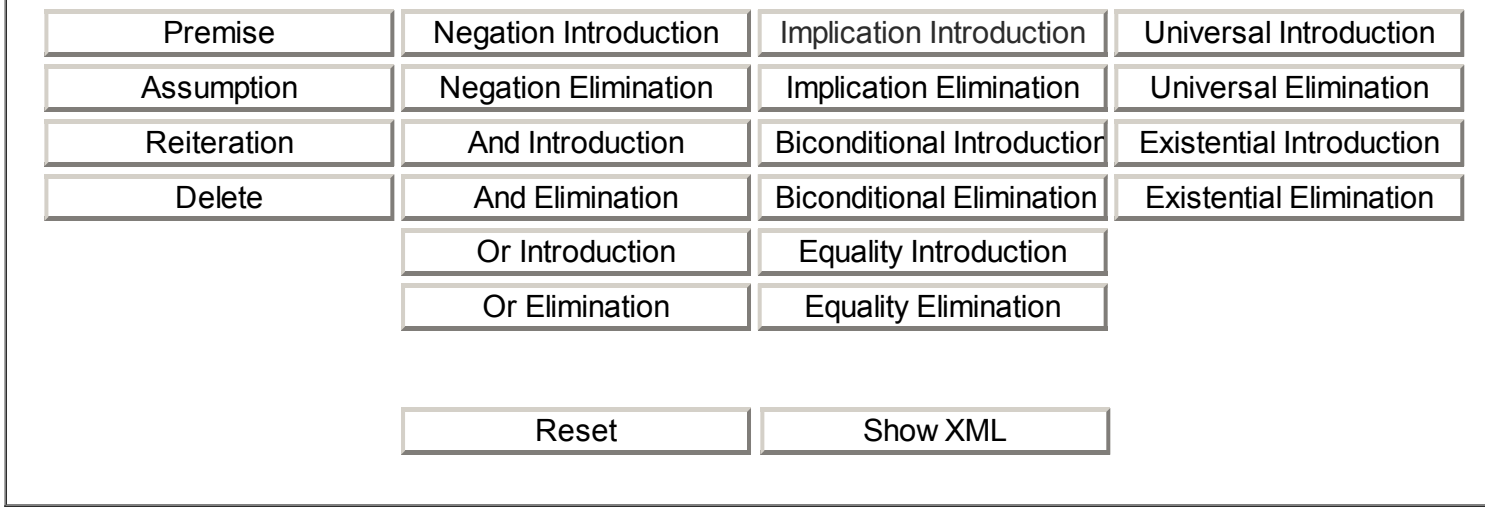
Fitch

Show Instructions

Proof Editor

1.	AX:X=plus(X,0)	Premise
2.	AX:0=plus(X,neg(X))	Premise
3.	AX:AY:AZ:plus(X,plus(Y,Z))=plus(plus(X,Y),Z)	Premise
4.	plus(U,W)=plus(V,W)	Assumption
5.	plus(plus(U,W),neg(W))=plus(plus(U,W),neg(W))	Equality Introduction
6.	plus(plus(U,W),neg(W))=plus(plus(V,W),neg(W))	Equality Elimination: 5, 4
7.	AY:AZ:plus(U,plus(Y,Z))=plus(plus(U,Y),Z)	Universal Elimination: 3
8.	AZ:plus(U,plus(W,Z))=plus(plus(U,W),Z)	Universal Elimination: 7
9.	plus(U,plus(W,neg(W)))=plus(plus(U,W),neg(W))	Universal Elimination: 8
10.	plus(U,plus(W,neg(W)))=plus(plus(V,W),neg(W))	Equality Elimination: 9, 6
11.	AY:AZ:plus(V,plus(Y,Z))=plus(plus(V,Y),Z)	Universal Elimination: 3
12.	AZ:plus(V,plus(W,Z))=plus(plus(V,W),Z)	Universal Elimination: 11
13.	plus(V,plus(W,neg(W)))=plus(plus(V,W),neg(W))	Universal Elimination: 12
14.	0=plus(W,neg(W))	Universal Elimination: 2
15.	V=plus(V,0)	Universal Elimination: 1
16.	U=plus(U,0)	Universal Elimination: 1
17.	plus(U,plus(W,neg(W)))=plus(V,plus(W,neg(W)))	Equality Elimination: 10, 13
18.	plus(U,0)=plus(V,0)	Equality Elimination: 17, 14
19.	plus(plus(U,0),0)=plus(V,0)	Equality Elimination: 18, 16
20.	U=plus(V,0)	Equality Elimination: 18, 16
21.	U=plus(plus(V,0),0)	Equality Elimination: 20, 15
22.	U=V	Equality Elimination: 20, 15
23.	plus(U,W)=plus(V,W) => U=V	Implication Introduction: 22



Input:

Eval

Output: