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(plus(a,b),neg(b))=plus(plus(a,b),neg(b))	Equality Introduction
5.	AY:AZ:plus(a,plus(Y,Z))=plus(plus(a,Y),Z)	Universal Elimination: 3
6.	AZ:plus(a,plus(b,Z))=plus(plus(a,b),Z)	Universal Elimination: 5
7.	plus(a,plus(b,neg(b)))=plus(plus(a,b),neg(b))	Universal Elimination: 6
8.	0=plus(b,neg(b))	Universal Elimination: 2
9.	plus(a,0)=plus(plus(a,b),neg(b))	Equality Elimination: 7, 8
10.	a=plus(a,0)	Universal Elimination: 1
11.	a=plus(plus(a,b),neg(b))	Equality Elimination: 10, 9

Premise	Negation Introduction	Implication Introduction	Universal Introduction
Assumption	Negation Elimination	Implication Elimination	Universal Elimination
Reiteration	And Introduction	Biconditional Introduction	Existential Introduction
Delete	And Elimination	Biconditional Elimination	Existential Elimination
	Or Introduction	Equality Introduction	
	Or Elimination	Equality Elimination	
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Input:

Eval

Output: