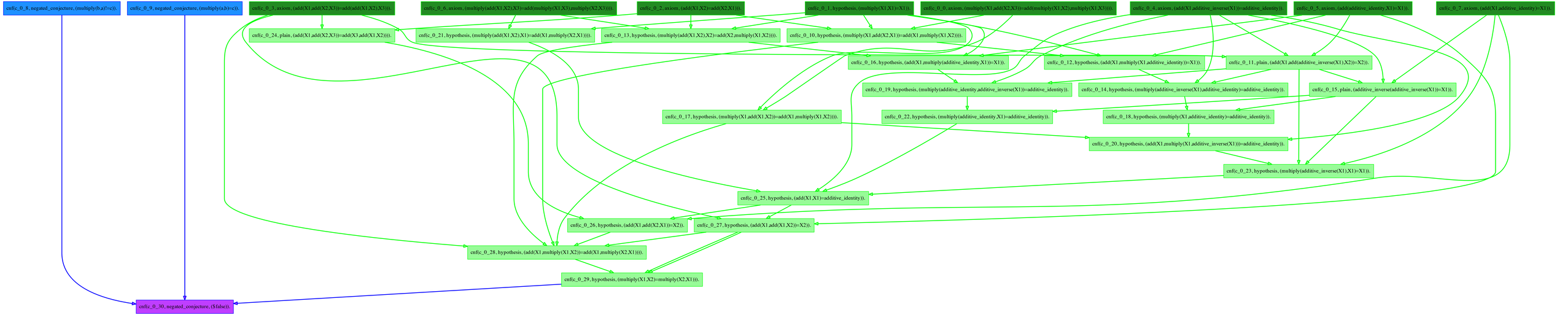

cnf(c_0_8,negated_conjecture,(multiply(b,a)!=c)).
cnf(c_0_9,negated_conjecture,(multiply(a,b)=c)).
cnf(c_0_3,axiom,(add(X1,add(X2,X3))=add(add(X1,X2),X3))).
cnf(c_0_6,axiom,(multiply(add(X1,X2),X3)=add(multiply(X1,X3),multiply(X2,X3)))).
cnf(c_0_2,axiom,(add(X1,X2)=add(X2,X1))).
cnf(c_0_1,hypothesis,(multiply(X1,X1)=X1)).
cnf(c_0_0,axiom,(multiply(X1,add(X2,X3))=add(multiply(X1,X2),multiply(X1,X3)))).
cnf(c_0_4,axiom,(add(X1,additive_inverse(X1))=additive_identity)).
cnf(c_0_5,axiom,(add(additive_identity,X1)=X1)).
cnf(c_0_7,axiom,(add(X1,additive_identity)=X1)).
cnf(c_0_24,plain,(add(X1,add(X2,X3))=add(X3,add(X1,X2)))).
cnf(c_0_21,hypothesis,(multiply(add(X1,X2),X1)=add(X1,multiply(X2,X1)))).
cnf(c_0_13,hypothesis,(multiply(add(X1,X2),X2)=add(X2,multiply(X1,X2)))).
cnf(c_0_10,hypothesis,(multiply(X1,add(X2,X1))=add(X1,multiply(X1,X2)))).
cnf(c_0_16,hypothesis,(add(X1,multiply(additive_identity,X1))=X1)).
cnf(c_0_12,hypothesis,(add(X1,multiply(X1,additive_identity))=X1)).
cnf(c_0_11,plain,(add(X1,add(additive_inverse(X1),X2))=X2)).
cnf(c_0_19,hypothesis,(multiply(additive_identity,additive_inverse(X1))=additive_identity)).
cnf(c_0_14,hypothesis,(multiply(additive_inverse(X1),additive_identity)=additive_identity)).
cnf(c_0_15,plain,(additive_inverse(additive_inverse(X1))=X1)).
cnf(c_0_17,hypothesis,(multiply(X1,add(X1,X2))=add(X1,multiply(X1,X2)))).
cnf(c_0_22,hypothesis,(multiply(additive_identity,X1)=additive_identity)).
cnf(c_0_18,hypothesis,(multiply(X1,additive_identity)=additive_identity)).
cnf(c_0_20,hypothesis,(add(X1,multiply(X1,additive_inverse(X1)))=additive_identity)).
cnf(c_0_23,hypothesis,(multiply(additive_inverse(X1),X1)=X1)).
cnf(c_0_25,hypothesis,(add(X1,X1)=additive_identity)).
cnf(c_0_26,hypothesis,(add(X1,add(X2,X1))=X2)).
cnf(c_0_27,hypothesis,(add(X1,add(X1,X2))=X2)).
cnf(c_0_28,hypothesis,(add(X1,multiply(X1,X2))=add(X1,multiply(X2,X1)))).
cnf(c_0_29,hypothesis,(multiply(X1,X2)=multiply(X2,X1))).
cnf(c_0_30,negated_conjecture,($false)).