

t30_group_1
(TMPP9qCBe56S9fHGeRVthqQAtPk91zkPJDZ)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v8_struct_0 : \iota \Rightarrow o$ be given. Let $v2_group_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k7_group_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_group_10 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_group_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (\forall X1.((\neg \\ v2_struct_0 X1) \wedge ((v8_struct_0 X1) \wedge ((v2_group_1 X1) \wedge ((v3_group_1 \\ X1) \wedge ((v5_group_1 X1) \wedge (l3_algstr_0 X1)))))) \Rightarrow (\forall X2.(m1_group_2 \\ X2 X1) \Rightarrow (\forall X3.(m1_group_2 X3 X1) \Rightarrow (\forall X4.(m1_group_2 \\ X4 X1) \Rightarrow (((v2_group_10 X3 X0) \wedge ((v2_group_10 X4 X0) \wedge (u1_struct_0 \\ X2 = k7_group_4 X1 X3 X4)) \Rightarrow (v2_group_10 X2 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge (l3_algstr_0 \\ X0))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow ((\neg v2_struct_0 X1) \wedge ((v2_group_1 \\ X1) \wedge (l3_algstr_0 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (\forall X1.(l3_algstr_0 \\ X1) \Rightarrow (((\neg v2_struct_0 X1) \wedge ((v8_struct_0 X1) \wedge ((v2_group_1 X1) \wedge \\ ((v3_group_1 X1) \wedge ((v5_group_1 X1) \wedge (v2_group_10 X1 X0)))))) \Rightarrow \\ ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge ((v3_group_1 X1) \wedge (v3_group_1 \\ X1 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(l3_algstr_0\ X1) \Rightarrow ((\\ (\neg v2_struct_0\ X1) \wedge ((v2_group_1\ X1) \wedge ((v3_group_1\ X1) \wedge (v3_grouppp_1 \\ X1\ X0)))) \Rightarrow ((\neg v2_struct_0\ X1) \wedge ((v2_group_1\ X1) \wedge ((v3_group_1 \\ X1) \wedge ((v2_group_10\ X1\ X0) \wedge (v2_grouppp_1\ X1\ X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0) \wedge ((v8_struct_0\ X0) \wedge ((v2_group_1 \\ X0) \wedge ((v3_group_1\ X0) \wedge (l3_algstr_0\ X0)))) \Rightarrow (\forall X1.(m1_group_2 \\ X1\ X0) \Rightarrow (v8_struct_0\ X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0) \wedge ((v2_group_1\ X0) \wedge ((v3_group_1 \\ X0) \wedge ((v5_group_1\ X0) \wedge (l3_algstr_0\ X0)))) \Rightarrow (\forall X1.(m1_group_2 \\ X1\ X0) \Rightarrow (v5_group_1\ X1)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0) \wedge ((v2_group_1\ X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0\ X0)))) \Rightarrow (\forall X1.(m1_group_2\ X1\ X0) \Rightarrow (v3_group_1 \\ X1)) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.((v7_ordinal1\ X0) \wedge (v1_int_2\ X0)) \Rightarrow (\forall X1.((\neg \\ v2_struct_0\ X1) \wedge ((v8_struct_0\ X1) \wedge ((v2_group_1\ X1) \wedge ((v3_group_1 \\ X1) \wedge ((v5_group_1\ X1) \wedge (l3_algstr_0\ X1)))))) \Rightarrow (\forall X2.(m1_group_2 \\ X2\ X1) \Rightarrow (\forall X3.(m1_group_2\ X3\ X1) \Rightarrow (\forall X4.(m1_group_2 \\ X4\ X1) \Rightarrow (((v3_grouppp_1\ X3\ X0) \wedge ((v3_grouppp_1\ X4\ X0) \wedge (u1_struct_0 \\ X2 = k7_group_4\ X1\ X3\ X4)) \Rightarrow (v3_grouppp_1\ X2\ X0)))))) \end{aligned}$$