

t16_unialg_3

(TMQMXt8ZooofT5yHBzEPAu8QxCqqgVrjoLrt)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_unialg_1 : \iota \Rightarrow o$ be given. Let $v3_unialg_1 : \iota \Rightarrow o$ be given. Let $v4_unialg_1 : \iota \Rightarrow o$ be given. Let $v2_unialg_2 : \iota \Rightarrow o$ be given. Let $l1_unialg_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k12_unialg_2 : \iota \Rightarrow \iota$ be given. Let $v1_unialg_1 : \iota \Rightarrow o$ be given. Let $m1_unialg_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1. (m1_unialg_2 \\ X1 X0) \Rightarrow (r1_tarski (u1_struct_0 X1) (u1_struct_0 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ X0) \wedge ((v4_unialg_1 X0) \wedge ((v2_unialg_2 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow \\ (\forall X1. (m1_subset_1 X1 (u1_struct_0 (k12_unialg_2 X0))) \Rightarrow \\ (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k12_unialg_2 X0))) \Rightarrow \\ (\forall X3. ((v1_unialg_1 X3) \wedge (m1_unialg_2 X3 X0)) \Rightarrow (\forall X4. \\ ((v1_unialg_1 X4) \wedge (m1_unialg_2 X4 X0)) \Rightarrow (((X1 = X3) \wedge (X2 = X4)) \Rightarrow \\ ((r3_lattices (k12_unialg_2 X0) X1 X2) \Leftrightarrow (r1_tarski (u1_struct_0 \\ X3) (u1_struct_0 X4)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1. (m1_unialg_2 \\ X1 X0) \Rightarrow (\forall X2. (m1_unialg_2 X2 X0) \Rightarrow ((r1_tarski (u1_struct_0 \\ X1) (u1_struct_0 X2)) \Rightarrow (m1_unialg_2 X1 X2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ X0) \wedge ((v4_unialg_1 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow (\forall X1. (m1_unialg_2 \\ X1 X0) \Rightarrow ((\neg v2_struct_0 X1) \wedge ((v2_unialg_1 X1) \wedge ((v3_unialg_1 X1) \wedge \\ ((v4_unialg_1 X1) \wedge (l1_unialg_1 X1)))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\ & X0) \wedge ((v4_unialg_1 X0) \wedge ((v2_unialg_2 X0) \wedge (l1_unialg_1 X0)))))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k12_unialg_2 X0))) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k12_unialg_2 X0))) \Rightarrow \\ & (\forall X3.((v1_unialg_1 X3) \wedge (m1_unialg_2 X3 X0)) \Rightarrow (\forall X4. \\ & ((v1_unialg_1 X4) \wedge (m1_unialg_2 X4 X0)) \Rightarrow (((X1 = X3) \wedge (X2 = X4)) \Rightarrow \\ & (r3_lattices (k12_unialg_2 X0) X1 X2) \Leftrightarrow (m1_unialg_2 X3 X4)))))) \end{aligned}$$