

t78_group_11 (TMQqaNwh- pacvVXn6EGNWFx8JU4rs7m1FpSe)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_group_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_group_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_group_11 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_group_11 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v1_group_3 X1 X0) \wedge (m1_group_2 \\ & X1 X0)) \Rightarrow (\forall X2.((v1_group_3 X2 X0) \wedge (m1_group_2 X2 X0)) \Rightarrow (\\ & \neg (m1_group_2 X2 X1) \wedge (\forall X3.((v15_algstr_0 X3) \wedge ((v1_group_3 \\ & X3 X0) \wedge (m1_group_2 X3 X0)))) \Rightarrow (\forall X4.((v15_algstr_0 X4) \wedge (\\ & (v1_group_3 X4 X0) \wedge (m1_group_2 X4 X0)))) \Rightarrow (\neg (u1_struct_0 X3 = k4_group_11 \\ & X0 X1 X2) \wedge ((u1_struct_0 X4 = k3_group_11 X0 X1 X2) \wedge (r1_tarski (k4_group_11 \\ & X0 X1 X4) (k4_group_11 X0 X1 X3)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1_group_2 X2 X0) \Rightarrow (r1_tarski (k3_group_11 X0 X2 X1) (k4_group_11 \\ & X0 X2 X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v1_group_3 X1 X0) \wedge (m1_group_2 \\ & X1 X0)) \Rightarrow (\forall X2.((v1_group_3 X2 X0) \wedge (m1_group_2 X2 X0)) \Rightarrow (\\ & \neg(m1_group_2 X2 X1) \wedge (\forall X3.((v15_algstr_0 X3) \wedge ((v1_group_3 \\ & X3 X0) \wedge (m1_group_2 X3 X0)))) \Rightarrow (\forall X4.((v15_algstr_0 X4) \wedge (\\ & (v1_group_3 X4 X0) \wedge (m1_group_2 X4 X0)))) \Rightarrow (\neg(u1_struct_0 X3 = k4_group_11 \\ & X0 X1 X2) \wedge ((u1_struct_0 X4 = k3_group_11 X0 X1 X2) \wedge (r1_tarski (k3_group_11 \\ & X0 X1 X4) (k4_group_11 X0 X1 X3)))))))))) \end{aligned}$$