

t30_bciideal
(TMbSwrBTm1TmVryEJK52p8FxFoajCithhiZ)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_bcialg_1 : \iota \Rightarrow o$ be given. Let $v4_bcialg_1 : \iota \Rightarrow o$ be given. Let $v5_bcialg_1 : \iota \Rightarrow o$ be given. Let $v7_bcialg_1 : \iota \Rightarrow o$ be given. Let $l2_bcialg_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_bcialg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_bcialg_1 : \iota \Rightarrow \iota$ be given. Let $v8_bcialg_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v3_bcialg_1 X0) \wedge ((v4_bcialg_1 \\ X0) \wedge ((v5_bcialg_1 X0) \wedge ((v7_bcialg_1 X0) \wedge ((v8_bcialg_1 X0) \wedge \\ (l2_bcialg_1 X0))))))) \Rightarrow (k4_bcialg_1 X0 = u1_struct_0 X0) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v3_bcialg_1 X0) \wedge ((v4_bcialg_1 \\ X0) \wedge ((v5_bcialg_1 X0) \wedge ((v7_bcialg_1 X0) \wedge (l2_bcialg_1 X0)))))) \Rightarrow \\ &((\forall X1. ((\neg v2_struct_0 X1) \wedge ((v3_bcialg_1 X1) \wedge ((v4_bcialg_1 \\ X1) \wedge ((v5_bcialg_1 X1) \wedge ((v7_bcialg_1 X1) \wedge (l2_bcialg_1 X1)))))) \Rightarrow \\ &(\forall X2. (m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (\forall X3. (m1_subset_1 \\ X3 (u1_struct_0 X1)) \Rightarrow (k1_bcialg_1 X1 (k1_bcialg_1 X1 X2 X3) (k1_bcialg_1 \\ X1 X3 X2) = k1_bcialg_1 X1 X2 X3)))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v3_bcialg_1 \\ X0) \wedge ((v4_bcialg_1 X0) \wedge ((v5_bcialg_1 X0) \wedge ((v7_bcialg_1 X0) \wedge \\ (v8_bcialg_1 X0) \wedge (l2_bcialg_1 X0))))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v3_bcialg_1 X0) \wedge ((v4_bcialg_1 \\ X0) \wedge ((v5_bcialg_1 X0) \wedge ((v7_bcialg_1 X0) \wedge (l2_bcialg_1 X0)))))) \Rightarrow \\ &((\forall X1. ((\neg v2_struct_0 X1) \wedge ((v3_bcialg_1 X1) \wedge ((v4_bcialg_1 \\ X1) \wedge ((v5_bcialg_1 X1) \wedge ((v7_bcialg_1 X1) \wedge (l2_bcialg_1 X1)))))) \Rightarrow \\ &(\forall X2. (m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (\forall X3. (m1_subset_1 \\ X3 (u1_struct_0 X1)) \Rightarrow (k1_bcialg_1 X1 (k1_bcialg_1 X1 X2 X3) (k1_bcialg_1 \\ X1 X3 X2) = k1_bcialg_1 X1 X2 X3)))) \Rightarrow (u1_struct_0 X0 = k4_bcialg_1 \\ &X0)) \end{aligned}$$