

t18_prelamb (TM- RKq3MHgvB5huxh41aHifmaDSmGMEW1aok)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v10_prelamb : \iota \Rightarrow o$ be given. Let $l2_prelamb : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r2_prelamb : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_prelamb : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_prelamb : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_prelamb : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v10_prelamb X0) \wedge (l2_prelamb \\ & \quad X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & \quad (u1_struct_0 X0)) \Rightarrow ((r2_prelamb X0 (k12_finseq_1 (u1_struct_0 \\ & \quad X0) X1) X2) \Rightarrow ((r2_prelamb X0 (k12_finseq_1 (u1_struct_0 X0) (k2_prelamb \\ & \quad X0 X3 X2)) (k2_prelamb X0 X3 X1)) \wedge (r2_prelamb X0 (k12_finseq_1 (\\ & \quad u1_struct_0 X0) (k1_prelamb X0 X2 X3)) (k1_prelamb X0 X1 X3))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v10_prelamb X0) \wedge (l2_prelamb \\ & \quad X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r2_prelamb X0 (k12_finseq_1 \\ & \quad (u1_struct_0 X0) X1) (k2_prelamb X0 X2 (k1_prelamb X0 X1 X2))) \wedge (\\ & \quad r2_prelamb X0 (k12_finseq_1 (u1_struct_0 X0) X1) (k1_prelamb X0 \\ & \quad (k2_prelamb X0 X2 X1) X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(l2_prelamb X0) \Rightarrow (l1_prelamb X0) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0) \wedge (l1_prelamb \\ & \quad X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 \\ & \quad X0)))) \Rightarrow (m1_subset_1 (k2_prelamb X0 X1 X2) (u1_struct_0 X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(l1_prelamb X0))\wedge((m1_subset_1 X1 (u1_struct_0 X0))\wedge(m1_subset_1 X2 (u1_struct_0 X0))))\Rightarrow(m1_subset_1 (k1_prelamb X0 X1 X2) (u1_struct_0 X0)) \quad (5)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v10_prelamb X0)\wedge(l2_prelamb X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(r2_prelamb X0 (k12_finseq_1 (u1_struct_0 X0) (k2_prelamb X0 X1 (k1_prelamb X0 (k2_prelamb X0 X1 X2) X1)) (k2_prelamb X0 X1 X2))))))$$