

t14_collsp
(TMa8eit6ZjCcYvxT46Nk6i6Nv3wCKuY4xc8)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_collsp : \iota \Rightarrow o$ be given. Let $v3_collsp : \iota \Rightarrow o$ be given. Let $v4_collsp : \iota \Rightarrow o$ be given. Let $l1_collsp : \iota \Rightarrow o$ be given. Let $m2_collsp : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_collsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ (l1_collsp X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((X1 \in k1_collsp \\ X0 X1 X2) \wedge (X2 \in k1_collsp X0 X1 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ ((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\forall X1.(m2_collsp X1 \\ X0) \Leftrightarrow (\exists X2.(m1_subset_1 X2 (u1_struct_0 X0)) \wedge (\exists X3. \\ (m1_subset_1 X3 (u1_struct_0 X0)) \wedge ((X2 \neq X3) \wedge (X1 = k1_collsp X0 \\ X2 X3)))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ ((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\forall X1.(m2_collsp X1 \\ X0) \Rightarrow (\exists X2.(m1_subset_1 X2 (u1_struct_0 X0)) \wedge (\exists X3. \\ (m1_subset_1 X3 (u1_struct_0 X0)) \wedge ((X2 \neq X3) \wedge ((X2 \in X1) \wedge (X3 \in X1)))))) \end{aligned}$$