

t19_collsp (TMJ24hs7HxKq1vdfW6cHg2rSKHXbZB1Kjka)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m2_collsp : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_collsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ & \quad ((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ & \quad X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\ & \quad X0)) \Rightarrow (\forall X3. (m2_collsp X3 X0) \Rightarrow (((X1 \in X3) \wedge (X2 \in X3)) \Rightarrow ((X1 = \\ & \quad X2) \vee (r1_tarski (k1_collsp X0 X1 X2) X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ & \quad ((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\forall X1. (m2_collsp X1 \\ & \quad X0) \Rightarrow (\forall X2. (m2_collsp X2 X0) \Rightarrow ((r1_tarski X1 X2) \Rightarrow (X1 = X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_collsp X0) \wedge ((v3_collsp X0) \wedge \\ & \quad ((v4_collsp X0) \wedge (l1_collsp X0)))))) \Rightarrow (\forall X1. (m2_collsp X1 \\ & \quad X0) \Leftrightarrow (\exists X2. (m1_subset_1 X2 (u1_struct_0 X0)) \wedge (\exists X3. \\ & \quad (m1_subset_1 X3 (u1_struct_0 X0)) \wedge ((X2 \neq X3) \wedge (X1 = k1_collsp X0 \\ & \quad X2 X3)))))) \end{aligned} \quad (3)$$

Theorem 1

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