

l28_collsp

(TMXRG4LEsPQhFNz4NF7NNnbK4r3f3fbB6yE)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $c9_collsp : \iota$ be given. Let $k4_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_collsp : \iota \Rightarrow \iota$ be given. Let $c8_collsp : \iota$ be given. Let $c7_collsp : \iota$ be given. Let $m1_collsp : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1_collsp : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_collsp : \iota \Rightarrow o$ be given. Let $l1_collsp : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 X0 (u1_struct_0 c9_collsp)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 c9_collsp)) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 (u1_struct_0 c9_collsp)) \Rightarrow ((k4_domain_1 (u1_struct_0 c9_collsp) \\ & (u1_struct_0 c9_collsp) (u1_struct_0 c9_collsp) X0 X1 X2 \in c8_collsp) \Leftrightarrow \\ & ((\neg(X0 \neq X1) \wedge ((X1 \neq X2) \wedge (X2 \neq X0))) \wedge ((X0 \in c7_collsp) \wedge ((X1 \in c7_collsp) \wedge \\ & (X2 \in c7_collsp)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_collsp X1 X0) \Rightarrow (\forall X2. \forall X3. (g1_collsp X0 X1 = g1_collsp X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1_collsp X1 X0) \Rightarrow ((v1_collsp (g1_collsp X0 X1)) \wedge (l1_collsp (g1_collsp X0 X1))) \quad (4)$$

Assume the following.

$$(\neg v2_struct_0 c9_collsp) \wedge (l1_collsp c9_collsp) \quad (5)$$

Assume the following.

$$m1_collsp c8_collsp c7_collsp \quad (6)$$

Assume the following.

$$c9_collsp = g1_collsp \ c7_collsp \ c8_collsp \quad (7)$$

Assume the following.

$$\forall X0.(l1_collsp \ X0) \Rightarrow ((v1_collsp \ X0) \Rightarrow (X0 = g1_collsp \ (u1_struct_0 \ X0) \ (u1_collsp \ X0))) \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 \ X0 \ (u1_struct_0 \ c9_collsp)) \Rightarrow (\forall X1. \\ & (m1_subset_1 \ X1 \ (u1_struct_0 \ c9_collsp)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 \ (u1_struct_0 \ c9_collsp)) \Rightarrow (\forall X3.(m1_subset_1 \ X3 \ (u1_struct_0 \\ & c9_collsp)) \Rightarrow (\forall X4.(m1_subset_1 \ X4 \ (u1_struct_0 \ c9_collsp)) \Rightarrow \\ & (\forall X5.(m1_subset_1 \ X5 \ (u1_struct_0 \ c9_collsp)) \Rightarrow (((k4_domain_1 \\ & (u1_struct_0 \ c9_collsp) \ (u1_struct_0 \ c9_collsp) \ (u1_struct_0 \\ & c9_collsp) \ X0 \ X1 \ X3 \in u1_collsp \ c9_collsp) \wedge ((k4_domain_1 \ (u1_struct_0 \\ & c9_collsp) \ (u1_struct_0 \ c9_collsp) \ (u1_struct_0 \ c9_collsp) \\ & X0 \ X1 \ X4 \in u1_collsp \ c9_collsp) \wedge (k4_domain_1 \ (u1_struct_0 \ c9_collsp) \\ & (u1_struct_0 \ c9_collsp) \ (u1_struct_0 \ c9_collsp) \ X0 \ X1 \ X5 \in u1_collsp \\ & c9_collsp))) \Rightarrow ((X0 = X1) \vee (k4_domain_1 \ (u1_struct_0 \ c9_collsp) \\ & (u1_struct_0 \ c9_collsp) \ (u1_struct_0 \ c9_collsp) \ X3 \ X4 \ X5 \in u1_collsp \\ & c9_collsp)))))))))) \end{aligned}$$