

l29_collsp

(TMJo4ox9Mikp6CDrX5mjFrWoVBfQRBo3dWN)

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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 $r1_collsp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_3 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $np_2 : \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k8_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k4_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v3_ordinal1 : \iota \Rightarrow o$ 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. Let $u1_collsp : \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_3) \wedge (m2_subset_1 np_3 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_3 k5_numbers) \wedge (m1_subset_1 np_3 k1_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\ & ((m1_subset_1 X1 X0) \wedge ((m1_subset_1 X2 X0) \wedge (m1_subset_1 X3 X0)))) \Rightarrow \\ & (k8_domain_1 X0 X1 X2 X3 = k1_enumset1 X1 X2 X3) \end{aligned} \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 c9_collsp)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 c9_collsp)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 c9_collsp)) \Rightarrow ((k4_domain_1 (u1_struct_0 c9_collsp) \\ & (u1_struct_0 c9_collsp) (u1_struct_0 c9_collsp) X0 X1 X2 \in c8_collsp) \Leftrightarrow \\ & ((\neg(X0 \neq X1) \wedge ((X1 \neq X2) \wedge (X2 \neq X0))) \wedge ((X0 \in c7_collsp) \wedge ((X1 \in c7_collsp) \wedge \\ & (X2 \in c7_collsp))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m1_collsp X1 X0) \Rightarrow (\forall X2.\forall X3. \\ & (g1_collsp X0 X1 = g1_collsp X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \quad (8)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m1_collsp X1 X0) \Rightarrow ((v1_collsp (g1_collsp \\ & X0 X1)) \wedge (l1_collsp (g1_collsp X0 X1))) \end{aligned} \quad (10)$$

Assume the following.

$$(\neg v2_struct_0 c9_collsp) \wedge (l1_collsp c9_collsp) \quad (11)$$

Assume the following.

$$m1_collsp c8_collsp c7_collsp \quad (12)$$

Assume the following.

$$c9_collsp = g1_collsp c7_collsp c8_collsp \quad (13)$$

Assume the following.

$$c7_collsp = k8_domain_1 k5_numbers np_1 np_2 np_3 \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_collsp X0)) \Rightarrow (\forall X1.(\\ & m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow \\ & ((r1_collsp X0 X1 X2 X3) \Leftrightarrow (k4_domain_1 (u1_struct_0 X0) (u1_struct_0 \\ & X0) (u1_struct_0 X0) X1 X2 X3 \in u1_collsp X0)))) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(X3 = k1_enumset1 \\ X0 X1 X2)\Leftrightarrow(\forall X4.(X4 \in X3)\Leftrightarrow(\neg(X4\neq X0)\wedge((X4\neq X1)\wedge(X4\neq X2)))) \quad (16)$$

Assume the following.

$$\forall X0.(l1_collsp X0)\Rightarrow((v1_collsp X0)\Rightarrow(X0 = g1_collsp (u1_struct_0 \\ X0) (u1_collsp X0))) \quad (17)$$

Theorem 1

$$\neg\forall X0.(m1_subset_1 X0 (u1_struct_0 c9_collsp))\Rightarrow(\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 c9_collsp))\Rightarrow(\forall X2.(m1_subset_1 \\ X2 (u1_struct_0 c9_collsp))\Rightarrow(r1_collsp c9_collsp X0 X1 X2)))$$