

t27_scmfsa10
(TMFffD1ZTAD9osp5BjiUEg7BmgTCYadf2ds)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_compos_0 : \iota \Rightarrow \iota$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_2 : \iota$ be given. Let $np_10 : \iota$ be given. Let $k3_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k2_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_ami_2 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_scmfsa_2 : \iota \Rightarrow o$ be given. Let $k15_scmfsa_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_compos_0 : \iota \Rightarrow o$ be given. Let $v4_funct_1 : \iota \Rightarrow o$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $v2_compos_0 : \iota \Rightarrow o$ be given. Let $v3_compos_0 : \iota \Rightarrow o$ be given. Let $v5_compos_0 : \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_3 : \iota$ be given. Let $k5_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmfsa_2)) \Rightarrow & (\neg(k2_compos_0 \\ & (u1_compos_1 k1_scmfsa_2) X0 = np_10) \wedge (\forall X1.((v1_ami_2 \\ & X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmfsa_2))) \Rightarrow (\forall X2. \\ & ((v1_ami_2 X2) \wedge (m1_subset_1 X2 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\ & (\forall X3.(m1_scmfsa_2 X3) \Rightarrow (X0 \neq k15_scmfsa_2 X2 X1 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.k2_xtuple_0 (k4_tarski X0 X1) = X1 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.k1_xtuple_0 (k4_tarski X0 X1) = X0 \quad (4)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\neg(X0 \neq k1_tarski k1_xboole_0) \wedge ((k1_xboole_0 \in X0) \wedge (\forall X1. \neg(X1 \in X0) \wedge (X1 \neq k1_xboole_0)))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (((\neg v1_xboole_0 X0) \wedge (v1_compos_0 X0)) \wedge (m1_subset_1 X1 (k1_compos_0 X0))) \Rightarrow ((\neg v1_xboole_0 (k3_compos_0 X0 X1)) \wedge (v4_funct_1 (k3_compos_0 X0 X1))) \quad (6)$$

Assume the following.

$$\forall X0. (l1_compos_1 X0) \Rightarrow ((v1_compos_0 (u1_compos_1 X0)) \wedge ((v2_compos_0 (u1_compos_1 X0)) \wedge ((v3_compos_0 (u1_compos_1 X0)) \wedge (v5_compos_0 (u1_compos_1 X0))))) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (l1_extpro_1 X1 X0) \Rightarrow ((l1_memstr_0 X1 X0) \wedge (l1_compos_1 X1)) \quad (8)$$

Assume the following.

$$(v1_extpro_1 k1_scmfsa_2 np_3) \wedge (l1_extpro_1 k1_scmfsa_2 np_3) \quad (9)$$

Assume the following.

$$\forall X0. k5_xtuple_0 X0 = k2_xtuple_0 (k1_xtuple_0 X0) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3_xtuple_0 X0 X1 X2 = k4_tarski (k4_tarski X0 X1) X2 \quad (12)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v1_compos_0 X0)) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_compos_0 X0)) \Rightarrow (k3_compos_0 X0 X1 = \text{ReplSep} (\text{toset} (\lambda X2 : \iota. m1_subset_1 X2 X0)) (\lambda X2 : \iota. k2_compos_0 X0 X2 = X1) (\lambda X2 : \iota. k5_xtuple_0 X2))) \quad (13)$$

Assume the following.

$$k1_xboole_0 = \text{the} (\lambda X0 : \iota. v1_xboole_0 X0) \quad (14)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\ & (\forall X1.((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmfsa_2)))) \Rightarrow \\ & (\forall X2.(m1_scmfsa_2 X2) \Rightarrow (k15_scmfsa_2 X0 X1 X2 = k3_xtuple_0 \\ & \quad np_10 k1_xboole_0 (k11_finseq_1 X0 X2 X1)))) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0. \forall X1. k2_tarski X0 X1 = k2_tarski X1 X0 \quad (17)$$

Assume the following.

$$\forall X0.(v5_compos_0 X0) \Rightarrow (\neg v1_xboole_0 X0) \quad (18)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_compos_0 (u1_compos_1 k1_scmfsa_2))) \Rightarrow \\ & ((X0 = np_10) \Rightarrow (k3_compos_0 (u1_compos_1 k1_scmfsa_2) X0 = k1_tarski \\ & \quad k1_xboole_0)) \end{aligned}$$