

t12_scmpds_2
(TMSHv2ndkJarSZ5JcEMP5DHM7G3NPL6Bwi1)

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Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k2_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmpds_2 : \iota$ be given. Let $k3_scmpds_2 : \iota \Rightarrow \iota$ be given. Let $np_14 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_compos_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $np_2 : \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v1_xboole_0 X0) \wedge (v1_compos_0 X0)) \wedge \\ & (m1_subset_1 X1 X0)) \Rightarrow (k2_compos_0 X0 X1 = k4_xtuple_0 X1) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k1_xtuple_0 (k4_tarski X0 X1) = X0 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_compos_1 X0) \Rightarrow ((v1_compos_0 (u1_compos_1 X0)) \wedge \\ & ((v2_compos_0 (u1_compos_1 X0)) \wedge ((v3_compos_0 (u1_compos_1 \\ & X0)) \wedge (v5_compos_0 (u1_compos_1 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (l1_extpro_1 X1 X0) \Rightarrow ((l1_memstr_0 X1 X0) \wedge (l1_compos_1 X1)) \quad (4)$$

Assume the following.

$$\forall X0. (v1_int_1 X0) \Rightarrow (m1_subset_1 (k3_scmpds_2 X0) (u1_compos_1 k1_scmpds_2)) \quad (5)$$

Assume the following.

$$(v1_extpro_1\ k1_scmpds_2\ np_2) \wedge (l1_extpro_1\ k1_scmpds_2\ np_2) \quad (6)$$

Assume the following.

$$\forall X0. k4_xtuple_0\ X0 = k1_xtuple_0\ (k1_xtuple_0\ X0) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3_xtuple_0\ X0\ X1\ X2 = k4_tarSKI\ (k4_tarSKI\ X0\ X1)\ X2 \quad (8)$$

Assume the following.

$$\forall X0. (v1_int_1\ X0) \Rightarrow (k3_scmpds_2\ X0 = k3_xtuple_0\ np_14\ k1_xboole_0\ (k9_finseq_1\ X0)) \quad (9)$$

Assume the following.

$$\forall X0. (v5_compos_0\ X0) \Rightarrow (\neg v1_xboole_0\ X0) \quad (10)$$

Theorem 1

$$\forall X0. (v1_int_1\ X0) \Rightarrow (k2_compos_0\ (u1_compos_1\ k1_scmpds_2)\ (k3_scmpds_2\ X0) = np_14)$$