

l45_scmpds_2 (TMdsKuGMZSb- CYncz7uJNRPY1pi7NTi4mput)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmpds_2 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ami_2 : \iota$ be given. Let $k2_ami_2 : \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_compos_0 : \iota \Rightarrow o$ be given. Let $k4_xtuple_0 : \iota \Rightarrow \iota$ 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. Assume the following.

$$\forall X0. \forall X1. (((\neg v1_xboole_0 X0) \wedge (v1_compos_0 X0)) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k2_compos_0 X0 X1 = k4_xtuple_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k4_xtuple_0 (k3_xtuple_0 X0 X1 X2) = X0 \quad (2)$$

Assume the following.

$$\forall X0. (l1_compos_1 X0) \Rightarrow ((v1_compos_0 (u1_compos_1 X0)) \wedge ((v2_compos_0 (u1_compos_1 X0)) \wedge ((v3_compos_0 (u1_compos_1 X0)) \wedge (v5_compos_0 (u1_compos_1 X0)))))) \quad (3)$$

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.

$$(v1_extpro_1 k1_scmpds_2 np_2) \wedge (l1_extpro_1 k1_scmpds_2 np_2) \quad (5)$$

Assume the following.

$$\forall X0. (v5_compos_0 X0) \Rightarrow (\neg v1_xboole_0 X0) \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow & ((X0 \in \\ ReplSep (toset (\lambda X1 : \iota.m2_subset_1 X1 k1_ami_2 k2_ami_2)) & \\ (\lambda X1 : \iota.True) (\lambda X1 : \iota.k3_xtuple_0 np_1 k1_xboole_0 & \\ (k12_finseq_1 k2_ami_2 X1))) \Rightarrow (k2_compos_0 (u1_compos_1 k1_scmpds_2) & \\ X0 = np_1)) \end{aligned}$$