

t32_scmfsa6a (TM-
NTzTrY56h7Moc3s9BXh8oBWzKpPiSWkry)

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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 $k1_scmfsa_2 : \iota$ be given. Let $k5_scmfsa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_scmfsa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_scmfsa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $k11_compos_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ 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. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmfsa_2)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (u1_compos_1 k1_scmfsa_2)) \Rightarrow (\forall X2. ((v1_relat_1 \\
 & X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((v5_relat_1 X2 (u1_compos_1 \\
 & k1_scmfsa_2)) \wedge ((\neg v1_xboole_0 X2) \wedge ((v1_funct_1 X2) \wedge ((v1_finset_1 \\
 & X2) \wedge (v1_afinsq_1 X2)))))) \Rightarrow (k5_scmfsa6a (k4_scmfsa6a X0 X2) \\
 & X1 = k4_scmfsa6a X0 (k5_scmfsa6a X2 X1))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmfsa_2)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (u1_compos_1 k1_scmfsa_2)) \Rightarrow (k6_scmfsa6a X0 X1 = \\
 & k4_scmfsa6a X0 (k11_compos_1 k1_scmfsa_2 X1)))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmfsa_2)) \Rightarrow (\forall X1. \\
 & (m1_subset_1 X1 (u1_compos_1 k1_scmfsa_2)) \Rightarrow (k6_scmfsa6a X0 X1 = \\
 & k5_scmfsa6a (k11_compos_1 k1_scmfsa_2 X0) X1))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((l1_compos_1 X0)\wedge(m1_subset_1 X1 (u1_compos_1 \\ X0)))\Rightarrow((\neg v1_xboole_0 (k11_compos_1 X0 X1))\wedge((v1_relat_1 (k11_compos_1 \\ X0 X1))\wedge((v4_relat_1 (k11_compos_1 X0 X1) k5_numbers)\wedge((v5_relat_1 \\ (k11_compos_1 X0 X1) (u1_compos_1 X0))\wedge((v1_funct_1 (k11_compos_1 \\ X0 X1))\wedge((v1_finset_1 (k11_compos_1 X0 X1))\wedge(v1_afinsq_1 (k11_compos_1 \\ X0 X1)))))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(l1_extpro_1 X1 X0)\Rightarrow((l1_memstr_0 X1 X0)\wedge (l1_compos_1 X1)) \quad (5)$$

Assume the following.

$$(v1_extpro_1 k1_scmfsa_2 np_3)\wedge(l1_extpro_1 k1_scmfsa_2 np_3) \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmfsa_2))\Rightarrow(\forall X1. \\ (m1_subset_1 X1 (u1_compos_1 k1_scmfsa_2))\Rightarrow(\forall X2.(m1_subset_1 \\ X2 (u1_compos_1 k1_scmfsa_2))\Rightarrow(k5_scmfsa6a (k6_scmfsa6a X0 X1) \\ X2 = k4_scmfsa6a X0 (k6_scmfsa6a X1 X2)))) \end{aligned}$$