

t4_scmisort (TMK- SHPc3k1qufd5TDRdKxTtJruU2p3hMH2a)

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Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_2 : \iota$ 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 $v1_ami_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r4_scmfsa7b : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_scmfsa_9 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\
 & (\forall X1.((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\
 & \quad (\forall X2.((v1_relat_1 X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((\\
 & \quad \quad v5_relat_1 X2 (u1_compos_1 k1_scmfsa_2)) \wedge ((v1_funct_1 X2) \wedge (\\
 & \quad \quad \quad (\neg v1_xboole_0 X2) \wedge ((v1_finset_1 X2) \wedge (v1_afinsq_1 X2))))))) \Rightarrow \\
 & \quad (\neg(\neg r4_scmfsa7b X2 X0) \wedge (r4_scmfsa7b (k2_scmfsa_9 X1 X2) X0))))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
 & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_relat_1 X0) \wedge ((v4_relat_1 \\
 & \quad X0 k5_numbers) \wedge ((v5_relat_1 X0 (u1_compos_1 k1_scmfsa_2)) \wedge (\\
 & \quad \quad (v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0))))))) \Rightarrow (\\
 & \quad \forall X1.((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\
 & \quad (\forall X2.((v1_ami_2 X2) \wedge (m1_subset_1 X2 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\
 & \quad \quad (\neg(\neg r4_scmfsa7b X0 X2) \wedge (r4_scmfsa7b (k2_scmfsa_9 X1 X0) X2))))
 \end{aligned}$$