

t12_scmbsort
(TMF3CAnxni9SfrT5eUA3fGJ8h1fjwRyLpXD)

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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 $k1_scmf_sa_2 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_scmf_sa_2 : \iota \Rightarrow o$ be given. Let $v1_ami_2 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k16_scmf_sa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_scmf_sa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_sf_mastr : \iota \Rightarrow \iota$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_sf_mastr : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmf_sa_2)) \Rightarrow (\forall X1. \\ & ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 \\ & (u1_compos_1 k1_scmf_sa_2)) \wedge ((v1_funct_1 X1) \wedge (v1_finset_1 X1)))))) \Rightarrow \\ & ((X0 \in k2_relset_1 (u1_compos_1 k1_scmf_sa_2) X1) \Rightarrow (r1_tarski (\\ & k3_sf_mastr X0) (k4_sf_mastr X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmf_sa_2))) \Rightarrow \\ & (\forall X1.(m1_scmf_sa_2 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_compos_1 \\ & k1_scmf_sa_2)) \Rightarrow (((X2 = k16_scmf_sa_2 X0 X1) \vee (X2 = k17_scmf_sa_2 X0 \\ & X1)) \Rightarrow (k3_sf_mastr X2 = k1_tarski X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v5_relat_1 X1 X0)) \Rightarrow (k2_relset_1 X0 X1 = k10_xtuple_0 X1) \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 \\ & X0 (u1_compos_1 k1_scmfsa_2)) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 \\ & X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_compos_1 k1_scmfsa_2)) \Rightarrow \\ & (\forall X2.(m1_scmfsa_2 X2) \Rightarrow (\forall X3.((v1_ami_2 X3) \wedge (m1_subset_1 \\ & X3 (u1_struct_0 k1_scmfsa_2))) \Rightarrow ((X1 \in k10_xtuple_0 X0) \Rightarrow (((X1 \neq \\ & k16_scmfsa_2 X3 X2) \wedge (X1 \neq k17_scmfsa_2 X3 X2)) \vee (X2 \in k4_sf_mastr \\ & X0)))))) \end{aligned}$$