

t51_sf_mastr
(TMQ7Z2C54e4PrKBLYWzExGsdnXp2w7Gxxzx)

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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 $k1_scmf_sa_2 : \iota$ 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 $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k6_scmf_sa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_scmf_sa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_scmf_sa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_scmf_sa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_scmf_sa_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_sf_mastr : \iota \Rightarrow \iota$ be given. Let $k2_sf_mastr : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_sf_mastr : \iota \Rightarrow \iota$ be given. Let $k5_scmf_sa_m : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. (& (v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 \\ & X0 (u1_compos_1 k1_scmf_sa_2)) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 \\ & X0)))))) \Rightarrow (\neg k5_sf_mastr X0 \in k2_sf_mastr X0) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (& (r1_tarski (k2_tarski X0 X1) \\ & X2) \Leftrightarrow ((X0 \in X2) \wedge (X1 \in X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (& (m1_subset_1 X0 (u1_compos_1 k1_scmf_sa_2)) \Rightarrow (\forall X1. \\ & ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 \\ & (u1_compos_1 k1_scmf_sa_2)) \wedge ((v1_funct_1 X1) \wedge (v1_finset_1 X1)))))) \Rightarrow \\ & ((X0 \in k2_relset_1 (u1_compos_1 k1_scmf_sa_2) X1) \Rightarrow (r1_tarski (\\ & k1_sf_mastr X0) (k2_sf_mastr X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\
& (\forall X1.((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_compos_1 k1_scmfsa_2)) \Rightarrow ((\neg(\\
& X2 \neq k6_scmfsa_2 X0 X1) \wedge ((X2 \neq k7_scmfsa_2 X0 X1) \wedge ((X2 \neq k8_scmfsa_2 \\
& X0 X1) \wedge ((X2 \neq k9_scmfsa_2 X0 X1) \wedge (X2 \neq k10_scmfsa_2 X0 X1)))))) \Rightarrow (\\
& k1_sf_mastr X2 = k5_scmfsa_m X0 X1)))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 \\
& k1_scmfsa_2))) \wedge ((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 \\
& k1_scmfsa_2)))) \Rightarrow (k5_scmfsa_m X0 X1 = k2_tarski X0 X1)
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 \\
& k1_scmfsa_2))) \wedge ((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 \\
& k1_scmfsa_2)))) \Rightarrow (m1_subset_1 (k9_scmfsa_2 X0 X1) (u1_compos_1 \\
& k1_scmfsa_2))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 \\
& k1_scmfsa_2))) \wedge ((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 \\
& k1_scmfsa_2)))) \Rightarrow (m1_subset_1 (k8_scmfsa_2 X0 X1) (u1_compos_1 \\
& k1_scmfsa_2))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 \\
& k1_scmfsa_2))) \wedge ((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 \\
& k1_scmfsa_2)))) \Rightarrow (m1_subset_1 (k7_scmfsa_2 X0 X1) (u1_compos_1 \\
& k1_scmfsa_2))
\end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 \\
& k1_scmfsa_2))) \wedge ((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 \\
& k1_scmfsa_2)))) \Rightarrow (m1_subset_1 (k6_scmfsa_2 X0 X1) (u1_compos_1 \\
& k1_scmfsa_2))
\end{aligned} \tag{9}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 \\
& k1_scmfsa_2))) \wedge ((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 \\
& k1_scmfsa_2)))) \Rightarrow (m1_subset_1 (k10_scmfsa_2 X0 X1) (u1_compos_1 \\
& k1_scmfsa_2))
\end{aligned} \tag{10}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\ & (\forall X1.((v1_ami_2 X1) \wedge (m1_subset_1 X1 (u1_struct_0 k1_scmfsa_2))) \Rightarrow \\ & (\forall X2.((v1_relat_1 X2) \wedge ((v4_relat_1 X2 k5_numbers) \wedge ((\\ & v5_relat_1 X2 (u1_compos_1 k1_scmfsa_2)) \wedge ((v1_funct_1 X2) \wedge (\\ v1_finset_1 X2)))))) \Rightarrow ((\neg(\neg k6_scmfsa_2 X0 X1 \in k2_relset_1 (u1_compos_1 \\ k1_scmfsa_2) X2) \wedge (\neg k7_scmfsa_2 X0 X1 \in k2_relset_1 (u1_compos_1 \\ k1_scmfsa_2) X2) \wedge (\neg k8_scmfsa_2 X0 X1 \in k2_relset_1 (u1_compos_1 \\ k1_scmfsa_2) X2) \wedge (\neg k9_scmfsa_2 X0 X1 \in k2_relset_1 (u1_compos_1 \\ k1_scmfsa_2) X2) \wedge (\neg k10_scmfsa_2 X0 X1 \in k2_relset_1 (u1_compos_1 \\ k1_scmfsa_2) X2))) \Rightarrow ((k5_sf_mastr X2 \neq X0) \wedge (k5_sf_mastr X2 \neq \\ X1)))))) \end{aligned}$$