

t7_scmpds_9

(TMEou9KJoit8Tzko7WF9WhgM6kopw35Xtnt)

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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 $k1_scmpds_2 : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k1_amistd_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k10_scmpds_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_funct_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_card_1 : \iota \Rightarrow \iota$ be given. Let $k5_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_scmpds_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 (u1_struct_0 k1_scmpds_2)) \wedge \\
 & ((v1_funct_1 X0) \wedge ((v5_funct_1 X0 (k2_memstr_0 np_2 k1_scmpds_2)) \wedge \\
 & (v1_partfun1 X0 (u1_struct_0 k1_scmpds_2)))))) \Rightarrow (\forall X1. \\
 & (v1_int_1 X1) \Rightarrow (\forall X2. (v1_int_1 X2) \Rightarrow (\forall X3. ((v1_ami_2 \\
 & X3) \wedge (m1_subset_1 X3 (u1_struct_0 k1_scmpds_2)))) \Rightarrow ((k1_funct_1 \\
 & (k2_extpro_1 np_2 k1_scmpds_2 (k10_scmpds_2 X3 X1 X2) X0) (k4_struct_0 \\
 & k1_scmpds_2) = k4_card_1 (k5_memstr_0 np_2 k1_scmpds_2 X0)) \wedge \\
 & ((k1_funct_1 (k2_extpro_1 np_2 k1_scmpds_2 (k10_scmpds_2 X3 \\
 & X1 X2) X0) (k2_scmpds_2 (k1_funct_1 X0 X3) X1) = X2) \wedge (\forall X4. \\
 & ((v1_ami_2 X4) \wedge (m1_subset_1 X4 (u1_struct_0 k1_scmpds_2)))) \Rightarrow \\
 & ((X4 \neq k2_scmpds_2 (k1_funct_1 X0 X3) X1) \Rightarrow (k1_funct_1 (k2_extpro_1 \\
 & np_2 k1_scmpds_2 (k10_scmpds_2 X3 X1 X2) X0) X4 = k1_funct_1 X0 X4))))))
 \end{aligned}$$

(1)

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_compos_1 k1_scmpds_2)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 k5_numbers) \Rightarrow ((\forall X2.((v1_relat_1 X2) \wedge \\
& (v4_relat_1 X2 (u1_struct_0 k1_scmpds_2)) \wedge ((v1_funct_1 X2) \wedge \\
& ((v5_funct_1 X2 (k2_memstr_0 np_2 k1_scmpds_2)) \wedge (v1_partfun1 \\
& X2 (u1_struct_0 k1_scmpds_2)))))) \Rightarrow ((k5_memstr_0 np_2 k1_scmpds_2 \\
& X2 = X1) \Rightarrow (k1_funct_1 (k2_extpro_1 np_2 k1_scmpds_2 X0 X2) (k4_struct_0 \\
& k1_scmpds_2) = k1_ordinal1 (k5_memstr_0 np_2 k1_scmpds_2 X2))) \Rightarrow \\
& (k1_amistd_1 np_2 k1_scmpds_2 X1 X0 = k1_tarski (k1_ordinal1 X1)))
\end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k4_card_1 X0 = k1_ordinal1 X0) \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(((v1_ami_2 X0) \wedge (m1_subset_1 \\
& X0 (u1_struct_0 k1_scmpds_2))) \wedge ((v1_int_1 X1) \wedge (v1_int_1 X2))) \Rightarrow \\
& (m1_subset_1 (k10_scmpds_2 X0 X1 X2) (u1_compos_1 k1_scmpds_2))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_ami_2 X0) \wedge (m1_subset_1 X0 (u1_struct_0 k1_scmpds_2))) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 k5_numbers) \Rightarrow (\forall X2.(v1_int_1 \\
& X2) \Rightarrow (\forall X3.(v1_int_1 X3) \Rightarrow (k1_amistd_1 np_2 k1_scmpds_2 \\
& X1 (k10_scmpds_2 X0 X2 X3) = k1_tarski (k1_ordinal1 X1))))
\end{aligned}$$