

t12_scmring1 (TMX- PCGs4eRYTmozd7SpydvV8sfn5VEr9HAd)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_ami_2 : \iota$ be given. Let $k1_scmring1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_ami_2 : \iota$ be given. Let $k2_ami_2 : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_scmring1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_afinsq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_2 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ & \forall X3.(X1 \neq X3) \Rightarrow (k1_funct_1 (k1_funct_4 X0 (k16_funcop_1 \\ & X1 X2)) X3 = k1_funct_1 X0 X3)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1.(v1_relat_1 (k6_afinsq_1 X0 X1)) \wedge (v1_funct_1 (k6_afinsq_1 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (v4_funct_1 (k4_card_3 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1.(((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \wedge ((\\ & v1_relat_1 X1) \wedge (v1_funct_1 X1))) \Rightarrow ((v1_relat_1 (k3_relat_1 X0 \\ & X1)) \wedge (v1_funct_1 (k3_relat_1 X0 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1.v1_relat_1 (k3_relat_1 X0 X1) \quad (5)$$

Assume the following.

$$(v1_funct_1\ k3_ami_2) \wedge ((v1_funct_2\ k3_ami_2\ k1_ami_2\ np_2) \wedge (m1_subset_1\ k3_ami_2\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_ami_2\ np_2)))) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. k16_funcop_1\ X0\ X1 = k7_funcop_1\ (k1_tarski\ X0)\ X1 \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0\ X0) \wedge (l1_struct_0\ X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1\ X1\ (k4_card_3\ (k3_relat_1\ k3_ami_2\ (k1_scmring1\ X0)))) \Rightarrow (\forall X2. (m2_subset_1\ X2\ k1_ami_2\ k2_ami_2) \Rightarrow (\forall X3. \\ & (m1_subset_1\ X3\ (u1_struct_0\ X0)) \Rightarrow (k4_scmring1\ X0\ X1\ X2\ X3 = k1_funct_4\ X1\ (k16_funcop_1\ X2\ X3)))))) \quad (8) \end{aligned}$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0\ X0) \wedge (l1_struct_0\ X0)) \Rightarrow (k1_scmring1\ X0 = k6_afinsq_1\ k5_numbers\ (u1_struct_0\ X0)) \quad (9)$$

Assume the following.

$$\forall X0. (v4_funct_1\ X0) \Rightarrow (\forall X1. (m1_subset_1\ X1\ X0) \Rightarrow ((v1_relat_1\ X1) \wedge (v1_funct_1\ X1))) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1))) \Rightarrow (v1_relat_1\ X2) \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0\ X0) \wedge (l1_struct_0\ X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1\ X1\ (k4_card_3\ (k3_relat_1\ k3_ami_2\ (k1_scmring1\ X0)))) \Rightarrow (\forall X2. (m2_subset_1\ X2\ k1_ami_2\ k2_ami_2) \Rightarrow (\forall X3. \\ & (m1_subset_1\ X3\ (u1_struct_0\ X0)) \Rightarrow (\forall X4. (m2_subset_1\ X4\ k1_ami_2\ k2_ami_2) \Rightarrow ((X4 \neq X2) \Rightarrow (k1_funct_1\ (k4_scmring1\ X0\ X1\ X2\ X3)\ X4 = k1_funct_1\ X1\ X4)))))) \end{aligned}$$