

l2_scmring2

(TMTc1twjQjt3sH6q9zvQxjHDe5ijV9Tt3Sz)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $k2_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k1_scmring2 : \iota \Rightarrow \iota$ 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 $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $l1_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $k1_ami_2 : \iota$ be given. Let $v1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $u2_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmringi : \iota \Rightarrow \iota$ be given. Let $u1_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_scmring1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & ((v2_xxreal_0\ np_2) \wedge (m2_subset_1\ np_2\ k1_numbers\ k5_numbers)) \wedge \\ & ((m1_subset_1\ np_2\ k5_numbers) \wedge (m1_subset_1\ np_2\ k1_numbers)) \end{aligned} \quad (1)$$

Assume the following.

$$\neg v1_xboole_0\ np_2 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & (((\neg v1_xboole_0\ X1) \wedge (\neg v1_xboole_0\ X3) \wedge (((v1_funct_1\ X4) \wedge ((v1_funct_2\ X4\ X0\ X1) \wedge (m1_subset_1\ X4\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))))) \wedge ((v1_funct_1\ X5) \wedge ((v1_funct_2\ X5\ X2\ X3) \wedge (m1_subset_1\ X5\ (k1_zfmisc_1\ (k2_zfmisc_1\ X2\ X3))))))))) \Rightarrow ((r1_funct_2\ X0\ X1\ X2\ X3\ X4\ X5) \Leftrightarrow (X4 = X5)) \end{aligned} \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(l1_memstr_0 X1 X0) \Rightarrow & ((v1_funct_1 (u1_memstr_0 \\ X0 X1)) \wedge ((v1_funct_2 (u1_memstr_0 X0 X1) & (u1_struct_0 X1) X0) \wedge \\ (m1_subset_1 (u1_memstr_0 X0 X1) (k1_zfmisc_1 & (k2_zfmisc_1 (u1_struct_0 \\ X1) X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(l1_extpro_1 X1 X0) \Rightarrow ((l1_memstr_0 X1 X0) \wedge (l1_compos_1 X1)) \quad (6)$$

Assume the following.

$$(v1_funct_1 k3_ami_2) \wedge ((v1_funct_2 k3_ami_2 k1_ami_2 np_2) \wedge (m1_subset_1 k3_ami_2 (k1_zfmisc_1 (k2_zfmisc_1 k1_ami_2 np_2)))) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge \\ (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow \\ ((v1_extpro_1 (k1_scmring2 X0) np_2) \wedge (l1_extpro_1 (k1_scmring2 \\ X0) np_2)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(\neg v1_setfam_1 X0) \Rightarrow (\forall X1.(l1_memstr_0 X1 X0) \Rightarrow (k2_memstr_0 X0 X1 = k3_relat_1 (u1_memstr_0 X0 X1) (u2_memstr_0 X0 X1))) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge \\ (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow \\ ((\forall X1.((v1_extpro_1 X1 np_2) \wedge (l1_extpro_1 X1 np_2)) \Rightarrow \\ ((X1 = k1_scmring2 X0) \Leftrightarrow ((u1_struct_0 X1 = k1_ami_2) \wedge ((u2_struct_0 \\ X1 = k5_numbers) \wedge ((u1_compos_1 X1 = k1_scmringi X0) \wedge ((r1_funct_2 \\ (u1_struct_0 X1) np_2 k1_ami_2 np_2 (u1_memstr_0 np_2 X1) k3_ami_2) \wedge \\ ((u2_memstr_0 np_2 X1 = k1_scmring1 X0) \wedge (u1_extpro_1 np_2 X1 = \\ k8_scmring1 X0)))))))))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (11)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge ((v7_ordinal1 X0) \wedge (\neg v1_setfam_1 X0))) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge \\ & (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow \\ & (k2_memstr_0 \text{ np_2 } (k1_scmring2 X0) = k3_relat_1 \text{ k3_ami_2 } (k1_scmring1 \\ & X0)) \end{aligned}$$