

t1_scmfsa6a
(TMHL6SfTtizdi9AWui83FQtU42s8nNBf5yC)

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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 $k1_scmfsa_2 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $k2_compos_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_scmfsa6a : \iota \Rightarrow \iota$ be given. Let $k6_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_3 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $v2_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_scmfsa_2 : \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa6a : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1. \forall X2. \\ & \neg(X1 \neq X2) \wedge (X1 \in k10_xtuple_0 (k6_funct_4 X0 X1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_3) \wedge (m2_subset_1 np_3 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_3 k5_numbers) \wedge (m1_subset_1 np_3 k1_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\neg v1_xboole_0 np_3 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_setfam_1 \ X0) \wedge ((v2_memstr_0 \ X1 \ X0) \wedge \\ & ((v3_extpro_1 \ X1 \ X0) \wedge (l1_extpro_1 \ X1 \ X0)))) \Rightarrow (v2_extpro_1 \ (k2_compos_1 \\ & \quad X1) \ X0 \ X1) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & (\neg v2_struct_0 \ k1_scmf_sa_2) \wedge ((v2_memstr_0 \ k1_scmf_sa_2 \ np_3) \wedge \\ & \quad (v1_extpro_1 \ k1_scmf_sa_2 \ np_3)) \end{aligned} \quad (8)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (9)$$

Assume the following.

$$(v1_extpro_1 \ k1_scmf_sa_2 \ np_3) \wedge (v3_extpro_1 \ k1_scmf_sa_2 \ np_3) \quad (10)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k5_numbers) \Rightarrow (\neg v2_extpro_1 \ (k11_scmf_sa_2 \ X0) \ np_3 \ k1_scmf_sa_2) \quad (11)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (12)$$

Assume the following.

$$\forall X0. (v1_finset_1 \ X0) \Rightarrow (m1_subset_1 \ (k5_card_1 \ X0) \ k4_ordinal1) \quad (13)$$

Assume the following.

$$(v1_extpro_1 \ k1_scmf_sa_2 \ np_3) \wedge (l1_extpro_1 \ k1_scmf_sa_2 \ np_3) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 \ X0) \wedge ((v4_relat_1 \ X0 \ k5_numbers) \wedge ((v5_relat_1 \\ & \quad X0 \ (u1_compos_1 \ k1_scmf_sa_2)) \wedge ((v1_funct_1 \ X0) \wedge (v1_finset_1 \\ & \quad X0)))))) \Rightarrow (k2_scmf_sa6a \ X0 = k1_scmf_sa6a \ X0 \ (k5_card_1 \ X0)) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 \ X0) \wedge ((v4_relat_1 \ X0 \ k5_numbers) \wedge ((v5_relat_1 \\ & \quad X0 \ (u1_compos_1 \ k1_scmf_sa_2)) \wedge ((v1_funct_1 \ X0) \wedge (v1_finset_1 \\ & \quad X0)))))) \Rightarrow (\forall X1. (m2_subset_1 \ X1 \ k1_numbers \ k5_numbers) \Rightarrow \\ & \quad (k1_scmf_sa6a \ X0 \ X1 = k6_funct_4 \ X0 \ (k2_compos_1 \ k1_scmf_sa_2) \ (k11_scmf_sa_2 \\ & \quad \quad X1))) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (17)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge ((v7_ordinal1 X0) \wedge (\neg v1_setfam_1 X0))) \quad (18)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v5_relat_1 X0 (u1_compos_1 k1_scmfsa_2)) \wedge ((\neg v1_xboole_0 X0) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0))))))) \Rightarrow (\neg k2_compos_1 k1_scmfsa_2 \in k10_xtuple_0 (k2_scmfsa6a X0))$$