

t31_scmfsa8a (TMVZkY-
Caocm4C5LCo9DajAYwF2EUfWv4Keq)

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Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k2_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_8a : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_scmfsa_2 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_scmfsa_2 : \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $v1_afinsq_1 : \iota \Rightarrow o$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 \\ & X0) \wedge (v1_finset_1 X0)))) \Rightarrow (k2_afinsq_1 X0 = k9_xtuple_0 X0) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow & ((k9_xtuple_0 \\ (k16_funcop_1 k6_numbers (k11_scmfsa_2 X0)) = k1_tarski k6_numbers) \wedge & \\ ((k6_numbers \in k9_xtuple_0 (k16_funcop_1 k6_numbers (k11_scmfsa_2 & \\ X0))) \wedge ((k1_funct_1 (k16_funcop_1 k6_numbers (k11_scmfsa_2 X0)) & \\ k6_numbers = k11_scmfsa_2 X0) \wedge ((k5_card_1 (k16_funcop_1 k6_numbers & \\ (k11_scmfsa_2 X0)) = np_1) \wedge (\neg k2_compos_1 k1_scmfsa_2 \in k10_xtuple_0 & \\ (k16_funcop_1 k6_numbers (k11_scmfsa_2 X0)))))) & \end{aligned} \quad (4)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (5)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (6)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow & ((\neg v1_xboole_0 (k1_scmfsa8a \\ X0)) \wedge ((v1_relat_1 (k1_scmfsa8a X0)) \wedge ((v4_relat_1 (k1_scmfsa8a & \\ X0) k5_numbers) \wedge ((v5_relat_1 (k1_scmfsa8a X0) (u1_compos_1 k1_scmfsa_2)) \wedge & \\ ((v1_funct_1 (k1_scmfsa8a X0)) \wedge ((v1_finset_1 (k1_scmfsa8a X0)) \wedge & \\ (v1_afinsq_1 (k1_scmfsa8a X0)))))) & \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarski X0) X1 \quad (9)$$

Assume the following.

$$\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (k1_scmfsa8a X0 = k16_funcop_1 k6_numbers (k11_scmfsa_2 X0)) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 & \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_afinsq_1 X0)))) \Rightarrow & ((v1_relat_1 X0) \wedge \\ ((v5_ordinal1 X0) \wedge (v1_funct_1 X0))) & \end{aligned} \quad (11)$$

Theorem 1

$$\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow ((k6_numbers \in k2_afinsq_1 (k1_scmfsa8a X0)) \wedge (k1_funct_1 (k1_scmfsa8a X0) k6_numbers = k11_scmfsa_2 X0))$$