

t31_matrixc1 (TMNmJn-
TaaQFD8iN9WdNWb2UxUvKAK4QWVNn)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k17_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k10_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_rvsum_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k45_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $v2_valued_0 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v5_valued_0 : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow (m2_finseq_2 X1 X0 (k4_finseq_2 (k3_finseq_1 X1) X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. ((v3_card_1 X1 X0) \wedge (\\ m2_finseq_1 X1 k2_numbers)) \Rightarrow (\forall X2. ((v3_card_1 X2 X0) \wedge (\\ m2_finseq_1 X2 k2_numbers)) \Rightarrow (k17_rvsum_1 (k8_rvsum_2 X0 X1 X2) = \\ k4_binop_2 (k17_rvsum_1 X1) (k17_rvsum_1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_2 X1 X0) \Rightarrow (\forall X2. (m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Leftrightarrow(m1_finseq_1 X1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X0)\wedge(((v3_card_1 X1 X0)\wedge(m1_finseq_1 X1 k2_numbers))\wedge((v3_card_1 X2 X0)\wedge(m1_finseq_1 X2 k2_numbers))))\Rightarrow(k8_rvsum_2 X0 X1 X2 = k45_valued_1 X1 X2) \quad (6)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1_finseq_1 X0 k2_numbers)\wedge(m1_finseq_1 X1 k2_numbers))\Rightarrow(k10_seq_4 X0 X1 = k45_valued_1 X0 X1) \quad (8)$$

Assume the following.

$$\begin{aligned} \exists X0.(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ k5_numbers)))\wedge((\neg v1_xboole_0 X0)\wedge((v1_relat_1 X0)\wedge((v4_relat_1 \\ X0 k5_numbers)\wedge((v5_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge \\ ((v1_partfun1 X0 k5_numbers)\wedge((v1_funct_2 X0 k5_numbers k5_numbers)\wedge \\ ((v1_valued_0 X0)\wedge((v2_valued_0 X0)\wedge((v3_valued_0 X0)\wedge((v4_valued_0 \\ X0)\wedge(v5_valued_0 X0)))))))))) \quad (9) \end{aligned}$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (10)$$

Assume the following.

$$\neg v1_xboole_0 k2_numbers \quad (11)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 X1))) \quad (13)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1 X0)\Rightarrow(m1_finseq_2 (k4_finseq_2 X0 X1) X1) \quad (15)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (m2_subset_1 (k3_finseq_1 X0) k1_numbers k5_numbers) \quad (16)$$

Assume the following.

$$\forall X0. \forall X1. (v1_xboole_0 X0) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_xboole_0 X2)) \quad (17)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (\forall X2. (m1_subset_1 X2 (k4_finseq_2 X1 X0)) \Rightarrow (v3_card_1 X2 X1)) \quad (18)$$

Assume the following.

$$\forall X0. (v6_membered X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (19)$$

Theorem 1

$$\forall X0. (m2_finseq_1 X0 k2_numbers) \Rightarrow (\forall X1. (m2_finseq_1 X1 k2_numbers) \Rightarrow ((k3_finseq_1 X0 = k3_finseq_1 X1) \Rightarrow (k17_rvsum_1 (k10_seq_4 X0 X1) = k4_binop_2 (k17_rvsum_1 X0) (k17_rvsum_1 X1))))$$