

t46_matrix13
(TMJkPQGAfqnrRGeB5tJPjuxmuQVj45seSKf8)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_matrix_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $k6_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_matrix_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k14_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_finseq_2 : \iota \Rightarrow \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $k5_matrix13 : \iota \Rightarrow \iota$ be given. Let $k1_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k14_finseq_1 (k2_finseq_1 X0) = k1_finseq_2 X0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\\ & \quad \forall X2.(v7_ordinal1 X2) \Rightarrow (\forall X3.((v1_matrix_1 X3) \wedge (\\ & \quad m2_finseq_1 X3 (k3_finseq_2 X0))) \Rightarrow (\forall X4.(m2_finseq_2 X4 \\ & \quad k5_numbers (k4_finseq_2 X1 k5_numbers)) \Rightarrow (\forall X5.(m2_finseq_2 \\ & \quad X5 k5_numbers (k4_finseq_2 X2 k5_numbers)) \Rightarrow (((X4 = k1_finseq_2 \\ & \quad (k3_finseq_1 X3)) \wedge (X5 = k1_finseq_2 (k1_matrix_1 X3))) \Rightarrow (k1_matrix13 \\ & \quad X0 X3 X1 X2 X4 X5 = X3)))))) \quad (2) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ & \quad (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ & \quad X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (3) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Leftrightarrow(m1_finseq_1 X1 X0) \quad (4)$$

Assume the following.

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

Assume the following.

$$\forall X0.((v1_finset_1 X0)\wedge((v1_setfam_1 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 k5_numbers))))\Rightarrow(k5_matrix13 X0 = k14_finseq_1 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(k2_finseq_1 X0 = k1_finseq_1 X0) \quad (7)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(v1_finset_1 (k1_finseq_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(v1_setfam_1 (k1_finseq_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge((v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 X1))) \quad (12)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (13)$$

Assume the following.

$$\forall X0.((v1_finset_1 X0)\wedge((v1_setfam_1 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 k5_numbers))))\Rightarrow(m2_finseq_2 (k5_matrix13 X0) k5_numbers (k4_finseq_2 (k5_card_1 X0) k5_numbers)) \quad (14)$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (m1_subset_1 (k5_card_1 X0) k4_ordinal1) \quad (15)$$

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.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (m1_subset_1 (k2_finseq_1 X0) (k1_zfmisc_1 k5_numbers)) \quad (17)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v1_finseq_1 X0) \wedge (v1_matrix_1 X0)))) \Rightarrow (m1_subset_1 (k1_matrix_1 X0) k5_numbers) \quad (18)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 X0)))) \Rightarrow (\forall X2.((v1_finset_1 X2) \wedge ((v1_setfam_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (\forall X3.((v1_finset_1 X3) \wedge ((v1_setfam_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (k6_matrix13 X0 X1 X2 X3 = k1_matrix13 X0 X1 (k5_card_1 X2) (k5_card_1 X3) (k5_matrix13 X2) (k5_matrix13 X3)))))) \quad (19) \end{aligned}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (20)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (21)$$

Theorem 1

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow (k6_matrix13 X0 X1 (k2_finseq_1 (k3_finseq_1 X1) (k2_finseq_1 (k1_matrix_1 X1) = X1)))$$