

l23_matrixj1

(TMHqmqzNZENz7JJVjZ3WobfBsYFRhSV97WW)

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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 $k2_wsierp_1 : \iota \Rightarrow \iota$ be given. Let $k10_matrixj1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_matrixj1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k16_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_matrix_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v1_matrixj1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_matrixj1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (k16_rvsum_1 (k9_finseq_1 X0) = X0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge \\ (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow (k10_matrixj1 X0 (k4_matrixj1 \\ X0 X1) = k4_matrix_2 k5_numbers (k3_finseq_1 X1))) \end{aligned} \quad (2)$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\forall X0.k9_finseq_1 X0 = k5_finseq_1 X0 \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((v1_matrix_1 X1)\wedge \\ (m1_finseq_1 X1 (k3_finseq_2 X0))))\Rightarrow(k4_matrixj1 X0 X1 = k5_finseq_1 \\ X1) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow \\ (k4_matrix_2 X0 X1 = k5_finseq_1 X1) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finseq_1 X0)))\Rightarrow \\ (k3_finseq_1 X0 = k1_card_1 X0) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_finseq_1 X0 k5_numbers)\Rightarrow(k2_wsierp_1 X0 = k16_rvsum_1 \\ X0) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((v1_matrixj1 X1 X0)\wedge \\ (m1_finseq_1 X1 (k3_finseq_2 (k3_finseq_2 X0))))\Rightarrow(k10_matrixj1 \\ X0 X1 = k8_matrixj1 X0 X1) \end{aligned} \quad (11)$$

Assume the following.

$$\neg v1_finset_1 k4_ordinal1 \quad (12)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_finset_1 X0)\Rightarrow((v1_finset_1 (k1_card_1 X0))\wedge(\\ v1_card_1 (k1_card_1 X0))) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge(\\ (v1_funct_1 X1)\wedge(v1_finseq_1 X1))) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((v1_matrixj1 X1 X0)\wedge \\ (m1_finseq_1 X1 (k3_finseq_2 (k3_finseq_2 X0))))\Rightarrow(m2_finseq_1 \\ (k8_matrixj1 X0 X1) k5_numbers) \end{aligned} \quad (16)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (17)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \wedge ((v1_matrix_1 \ X1) \wedge \\ (m1_finseq_1 \ X1 \ (k3_finseq_2 \ X0)))) \Rightarrow ((v1_matrixj1 \ (k4_matrixj1 \\ X0 \ X1) \ X0) \wedge (m2_finseq_1 \ (k4_matrixj1 \ X0 \ X1) \ (k3_finseq_2 \ (k3_finseq_2 \\ X0)))) \end{aligned} \quad (18)$$

Assume the following.

$$\forall X0. ((v1_relat_1 \ X0) \wedge ((v1_funct_1 \ X0) \wedge (v1_finseq_1 \ X0))) \Rightarrow \\ (m2_subset_1 \ (k3_finseq_1 \ X0) \ k1_numbers \ k5_numbers) \quad (19)$$

Assume the following.

$$\forall X0. v1_card_1 \ (k1_card_1 \ X0) \quad (20)$$

Assume the following.

$$\forall X0. ((v3_ordinal1 \ X0) \wedge (v1_finset_1 \ X0)) \Rightarrow (v7_ordinal1 \ X0) \quad (21)$$

Assume the following.

$$\forall X0. (v7_ordinal1 \ X0) \Rightarrow (v1_xreal_0 \ X0) \quad (22)$$

Assume the following.

$$\forall X0. (v1_finset_1 \ X0) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ X0)) \Rightarrow (v1_finset_1 \ X1)) \quad (23)$$

Assume the following.

$$\forall X0. ((v1_relat_1 \ X0) \wedge ((v1_funct_1 \ X0) \wedge (v1_finseq_1 \ X0))) \Rightarrow \\ ((v1_relat_1 \ X0) \wedge ((v1_funct_1 \ X0) \wedge (v1_finset_1 \ X0))) \quad (24)$$

Assume the following.

$$\forall X0. (v1_xboole_0 \ X0) \Rightarrow (v1_finset_1 \ X0) \quad (25)$$

Assume the following.

$$\forall X0. (v1_card_1 \ X0) \Rightarrow (v3_ordinal1 \ X0) \quad (26)$$

Theorem 1

$$\forall X0. (\neg v1_xboole_0 \ X0) \Rightarrow (\forall X1. ((v1_matrix_1 \ X1) \wedge \\ (m2_finseq_1 \ X1 \ (k3_finseq_2 \ X0))) \Rightarrow (k2_wsierp_1 \ (k10_matrixj1 \\ X0 \ (k4_matrixj1 \ X0 \ X1)) = k3_finseq_1 \ X1))$$