

t3_vectsp11

(TMHL35VpFWxzkwXFMMS9Ai1m8XGMjgh8TZf)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_matrix_1 : \iota \Rightarrow \iota$ be given. Let $k6_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_matrix_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_matrlin2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_card_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ 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 $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_matrix13 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k5_matrix13 : \iota \Rightarrow \iota$ be given. Let $k14_finseq_1 : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. ((v1_finset_1 X0) \wedge ((v1_setfam_1 X0) \wedge (m1_subset_1 \\ X0 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (\exists X1. (v7_ordinal1 X1) \wedge \\ (r1_tarski X0 (k2_finseq_1 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(v7_ordinal1\ X1) \Rightarrow (\forall X2. \\
& ((\neg v2_struct_0\ X2) \wedge ((\neg v6_struct_0\ X2) \wedge ((v13_algstr_0\ X2) \wedge (\\
& (v33_algstr_0\ X2) \wedge ((v3_group_1\ X2) \wedge ((v5_group_1\ X2) \wedge ((v4_vectsp_1 \\
& X2) \wedge ((v5_vectsp_1\ X2) \wedge ((v2_rlvect_1\ X2) \wedge ((v3_rlvect_1\ X2) \wedge \\
& ((v4_rlvect_1\ X2) \wedge (l6_algstr_0\ X2)))))))))) \Rightarrow (\forall X3. \\
& ((v1_matrix_1\ X3) \wedge (m2_finseq_1\ X3\ (k3_finseq_2\ (u1_struct_0 \\
& X2)))) \Rightarrow (\forall X4.((v1_matrix_1\ X4) \wedge (m2_finseq_1\ X4\ (k3_finseq_2 \\
& (u1_struct_0\ X2)))) \Rightarrow (\forall X5.(m2_finseq_2\ X5\ k5_numbers\ (\\
& k4_finseq_2\ X0\ k5_numbers)) \Rightarrow (\forall X6.(m2_finseq_2\ X6\ k5_numbers \\
& (k4_finseq_2\ X1\ k5_numbers)) \Rightarrow ((r1_tarski\ (k2_zfmisc_1\ (k10_xtuple_0 \\
& X5)\ (k10_xtuple_0\ X6))\ (k2_matrix_1\ X3)) \Rightarrow (k1_matrix13\ (u1_struct_0 \\
& X2)\ (k3_matrix_3\ X2\ X3\ X4)\ X0\ X1\ X5\ X6 = k5_matrlin2\ X0\ X1\ X2\ (k1_matrix13 \\
& (u1_struct_0\ X2)\ X3\ X0\ X1\ X5\ X6)\ (k1_matrix13\ (u1_struct_0\ X2)\ X4 \\
& X0\ X1\ X5\ X6)))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1\ X1\ X0) \Leftrightarrow (m1_finseq_1\ X1\ X0) \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$\forall X0.((v1_finset_1\ X0) \wedge ((v1_setfam_1\ X0) \wedge (m1_subset_1 \\
X0\ (k1_zfmisc_1\ k5_numbers)))) \Rightarrow (k5_matrix13\ X0 = k14_finseq_1 \\
X0) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2_struct_0\ X0) \wedge (l1_struct_0\ X0)) \Rightarrow (\neg v1_xboole_0 \\
(u1_struct_0\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(l6_algstr_0\ X0) \Rightarrow ((l2_algstr_0\ X0) \wedge (l5_algstr_0\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(l2_struct_0\ X0) \Rightarrow (l1_struct_0\ X0) \tag{8}$$

Assume the following.

$$\forall X0.(l2_algstr_0\ X0) \Rightarrow ((l2_struct_0\ X0) \wedge (l1_algstr_0\ X0)) \tag{9}$$

Assume the following.

$$\forall X0.((v1_finset_1\ X0) \wedge ((v1_setfam_1\ X0) \wedge (m1_subset_1 \\
X0\ (k1_zfmisc_1\ k5_numbers)))) \Rightarrow (m2_finseq_2\ (k5_matrix13\ X0)\ \\
k5_numbers\ (k4_finseq_2\ (k5_card_1\ X0)\ k5_numbers)) \tag{10}$$

Assume the following.

$$\forall X0.(v1_finset_1 X0) \Rightarrow (m1_subset_1 (k5_card_1 X0) k4_ordinal1) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0) \wedge (\neg v6_struct_0 \\ & X0) \wedge ((v13_algstr_0 X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge \\ & ((v5_group_1 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 \\ & X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \wedge \\ & (((v1_matrix_1 X1) \wedge (m1_finseq_1 X1 (k3_finseq_2 (u1_struct_0 \\ & X0)))) \wedge ((v1_matrix_1 X2) \wedge (m1_finseq_1 X2 (k3_finseq_2 (u1_struct_0 \\ & X0)))))) \Rightarrow ((v1_matrix_1 (k3_matrix_3 X0 X1 X2)) \wedge (m2_finseq_1 \\ & (k3_matrix_3 X0 X1 X2) (k3_finseq_2 (u1_struct_0 X0)))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.m2_finseq_1 (k14_finseq_1 X0) k5_numbers \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v1_matrix_1 X1) \wedge \\ & (m2_finseq_1 X1 (k3_finseq_2 X0))) \Rightarrow (\forall X2.((v1_finset_1 \\ & X2) \wedge ((v1_setfam_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 k5_numbers)))) \Rightarrow \\ & (\forall X3.((v1_finset_1 X3) \wedge ((v1_setfam_1 X3) \wedge (m1_subset_1 \\ & X3 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (k6_matrix13 X0 X1 X2 X3 = k1_matrix13 \\ & X0 X1 (k5_card_1 X2) (k5_card_1 X3) (k5_matrix13 X2) (k5_matrix13 \\ & X3)))))) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\exists X1.(v7_ordinal1 X1) \wedge (r1_tarski X0 (k2_finseq_1 \\ & X1))) \Rightarrow (\forall X1.(m2_finseq_1 X1 k5_numbers) \Rightarrow ((X1 = k14_finseq_1 \\ & X0) \Leftrightarrow ((k10_xtuple_0 X1 = X0) \wedge (\forall X2.(v7_ordinal1 X2) \Rightarrow (\forall X3. \\ & (v7_ordinal1 X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow (\forall X5.(\\ & v7_ordinal1 X5) \Rightarrow (\neg (r1_xxreal_0 np_1 X2) \wedge ((\neg r1_xxreal_0 X3 X2) \wedge \\ & ((r1_xxreal_0 X3 (k3_finseq_1 X1)) \wedge ((X4 = k1_funct_1 X1 X2) \wedge ((\\ & X5 = k1_funct_1 X1 X3) \wedge (r1_xxreal_0 X5 X4)))))))))))))) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (16)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge (\\ & (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 \\ & X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. \\ & ((v1_matrix_1 X1) \wedge (m2_finseq_1 X1 (k3_finseq_2 (u1_struct_0 \\ & X0)))) \Rightarrow (\forall X2. ((v1_matrix_1 X2) \wedge (m2_finseq_1 X2 (k3_finseq_2 \\ & (u1_struct_0 X0)))) \Rightarrow (\forall X3. ((v1_finset_1 X3) \wedge ((v1_setfam_1 \\ & X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 k5_numbers)))) \Rightarrow (\forall X4. \\ & ((v1_finset_1 X4) \wedge ((v1_setfam_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\ & k5_numbers)))) \Rightarrow ((r1_tarski (k2_zfmisc_1 X3 X4) (k2_matrix_1 \\ & X1)) \Rightarrow (k6_matrix13 (u1_struct_0 X0) (k3_matrix_3 X0 X1 X2) X3 X4 = \\ & k5_matrlin2 (k5_card_1 X3) (k5_card_1 X4) X0 (k6_matrix13 (u1_struct_0 \\ & X0) X1 X3 X4) (k6_matrix13 (u1_struct_0 X0) X2 X3 X4)))))) \end{aligned}$$