

t20_vectsp_7

(TMT4uwNkf5mHTHwGuAhJtMHjpBv9k9qZ59v)

October 27, 2020

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 $v8_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v9_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v10_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v11_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_vectsp_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_vectsp_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_vectsp_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $l1_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $v7_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_vectsp_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1_vectsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_vectsp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
 & X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge (\\
 & (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 \\
 & X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. \\
 & ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v8_vectsp_1 X1 X0) \wedge \\
 & ((v9_vectsp_1 X1 X0) \wedge ((v10_vectsp_1 X1 X0) \wedge ((v11_vectsp_1 X1 \\
 & X0) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge \\
 & (l1_vectsp_1 X1 X0)))))))))) \Rightarrow (\forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\
 & (u1_struct_0 X1))) \Rightarrow (\neg (k1_vectsp_7 X0 X1 X2 = X1) \wedge (\forall X3. (\\
 & m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X1))) \Rightarrow (\neg (r1_tarski \\
 & X3 X2) \wedge ((v1_vectsp_7 X3 X0 X1) \wedge (k1_vectsp_7 X0 X1 X3 = X1))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \tag{2}$$

Assume the following.

$$\forall X0.(l2_struct_0 X0)\Rightarrow(l1_struct_0 X0) \quad (3)$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0)\Rightarrow((l2_struct_0 X0)\wedge(l1_algstr_0 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(\neg v6_struct_0 \\ & X0)\wedge(v13_algstr_0 X0)\wedge(v33_algstr_0 X0)\wedge(v3_group_1 X0)\wedge \\ & ((v5_group_1 X0)\wedge(v4_vectsp_1 X0)\wedge(v5_vectsp_1 X0)\wedge(v2_rlvect_1 \\ & X0)\wedge(v3_rlvect_1 X0)\wedge(v4_rlvect_1 X0)\wedge(l6_algstr_0 X0))))))\wedge \\ & (((\neg v2_struct_0 X1)\wedge(v13_algstr_0 X1)\wedge(v8_vectsp_1 X1 X0)\wedge \\ & (v9_vectsp_1 X1 X0)\wedge(v10_vectsp_1 X1 X0)\wedge(v11_vectsp_1 X1 \\ & X0)\wedge(v2_rlvect_1 X1)\wedge(v3_rlvect_1 X1)\wedge(v4_rlvect_1 X1)\wedge \\ & (l1_vectsp_1 X1 X0))))))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ & X1))))\Rightarrow((v7_vectsp_1 (k1_vectsp_7 X0 X1 X2) X0)\wedge(m1_vectsp_4 \\ & (k1_vectsp_7 X0 X1 X2) X0 X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge(\neg v6_struct_0 X0)\wedge(v13_algstr_0 \\ & X0)\wedge(v33_algstr_0 X0)\wedge(v3_group_1 X0)\wedge(v5_group_1 X0)\wedge \\ & (v4_vectsp_1 X0)\wedge(v5_vectsp_1 X0)\wedge(v2_rlvect_1 X0)\wedge(v3_rlvect_1 \\ & X0)\wedge(v4_rlvect_1 X0)\wedge(l6_algstr_0 X0))))))\Rightarrow(\forall X1. \\ & ((\neg v2_struct_0 X1)\wedge(v13_algstr_0 X1)\wedge(v8_vectsp_1 X1 X0)\wedge \\ & (v9_vectsp_1 X1 X0)\wedge(v10_vectsp_1 X1 X0)\wedge(v11_vectsp_1 X1 \\ & X0)\wedge(v2_rlvect_1 X1)\wedge(v3_rlvect_1 X1)\wedge(v4_rlvect_1 X1)\wedge \\ & (l1_vectsp_1 X1 X0))))))\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (u1_struct_0 X1)))\Rightarrow((m1_vectsp_7 X2 X0 X1)\Leftrightarrow((v1_vectsp_7 X2 X0 \\ & X1)\wedge(k1_vectsp_7 X0 X1 X2 = g1_vectsp_1 X0 (u1_struct_0 X1) (u1_algstr_0 \\ & X1) (u2_struct_0 X1) (u1_vectsp_1 X0 X1)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((l1_struct_0 X0)\wedge(l1_vectsp_1 X1 X0))\Rightarrow \\ & ((v7_vectsp_1 X1 X0)\Rightarrow(X1 = g1_vectsp_1 X0 (u1_struct_0 X1) (u1_algstr_0 \\ & X1) (u2_struct_0 X1) (u1_vectsp_1 X0 X1))) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge \\ & (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 \\ & X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v8_vectsp_1 X1 X0) \wedge \\ & ((v9_vectsp_1 X1 X0) \wedge ((v10_vectsp_1 X1 X0) \wedge ((v11_vectsp_1 X1 \\ & X0) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge \\ & (l1_vectsp_1 X1 X0)))))))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (u1_struct_0 X1))) \Rightarrow (\neg(k1_vectsp_7 X0 X1 X2 = X1) \wedge (\forall X3.(\\ & m1_vectsp_7 X3 X0 X1) \Rightarrow (\neg r1_tarski X3 X2)))))) \end{aligned}$$