

t26_vectsp_1 (TM- SAgR2pvcF2E4KZLeuZXh9pxbU3MY6noPD)

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Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_vectsp_1 : \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $np_2 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k9_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $g6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v3_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $v6_vectsp_1 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_struct_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l3_struct_0 : \iota \Rightarrow o$ be given. Let $k35_binop_2 : \iota$ be given. Let $k33_binop_2 : \iota$ be given. Let $u3_struct_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\neg v1_xboole_0 np_2 \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$k2_xcmplx_0 \ np_{-1} \ np_{-1} = np_{-2} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xreal_0 \ X0) \wedge (v1_xreal_0 \ X1)) \Rightarrow (k9_binop_2 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \quad (5)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (6)$$

Assume the following.

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

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v2_rlvect_1 \ X0) \wedge (l1_algstr_0 \ X0)) \wedge ((m1_subset_1 \ X1 \ (u1_struct_0 \ X0)) \wedge (m1_subset_1 \ X2 \ (u1_struct_0 \ X0)))) \Rightarrow (k3_rlvect_1 \ X0 \ X1 \ X2 = k1_algstr_0 \ X0 \ X1 \ X2) \quad (8)$$

Assume the following.

$$\exists X0. (v1_xboole_0 \ X0) \wedge ((v1_xcmplx_0 \ X0) \wedge ((v1_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0))) \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((m1_subset_1 \ X0 \ (u1_struct_0 \ k2_vectsp_1)) \wedge ((m1_subset_1 \ X1 \ (u1_struct_0 \ k2_vectsp_1)) \wedge ((v1_xreal_0 \ X2) \wedge (v1_xreal_0 \ X3)))) \Rightarrow (((X0 = X2) \wedge (X1 = X3)) \Rightarrow (k1_algstr_0 \ k2_vectsp_1 \ X0 \ X1 = k9_binop_2 \ X2 \ X3)) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. \forall X4. (((v1_funct_1 \ X1) \wedge ((v1_funct_2 \ X1 \ (k2_zfmisc_1 \ X0 \ X0) \ X0) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0) \ X0)))))) \wedge (((v1_funct_1 \ X2) \wedge (v1_funct_2 \ X2 \ (k2_zfmisc_1 \ X0 \ X0) \ X0) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0) \ X0)))))) \wedge ((m1_subset_1 \ X3 \ X0) \wedge (m1_subset_1 \ X4 \ X0))) \Rightarrow (\forall X5. \forall X6. \forall X7. \forall X8. \forall X9. (g6_algstr_0 \ X0 \ X1 \ X2 \ X3 \ X4 = g6_algstr_0 \ X5 \ X6 \ X7 \ X8 \ X9) \Rightarrow ((X0 = X5) \wedge ((X1 = X6) \wedge ((X2 = X7) \wedge ((X3 = X8) \wedge (X4 = X9)))))) \quad (11)$$

Assume the following.

$$(\neg v6_struct_0 \ k2_vectsp_1) \wedge ((v13_algstr_0 \ k2_vectsp_1) \wedge ((v33_algstr_0 \ k2_vectsp_1) \wedge ((v36_algstr_0 \ k2_vectsp_1) \wedge ((v2_rlvect_1 \ k2_vectsp_1) \wedge ((v3_rlvect_1 \ k2_vectsp_1) \wedge ((v4_rlvect_1 \ k2_vectsp_1) \wedge ((v3_group_1 \ k2_vectsp_1) \wedge ((v5_group_1 \ k2_vectsp_1) \wedge ((v3_vectsp_1 \ k2_vectsp_1) \wedge ((v5_vectsp_1 \ k2_vectsp_1) \wedge (v6_vectsp_1 \ k2_vectsp_1)))))))))) \quad (12)$$

Assume the following.

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

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ X2 X0 X1) \Rightarrow (m1_subset_1 X2 X0)) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0. (l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (16)$$

Assume the following.

$$\forall X0. (l5_algstr_0 X0) \Rightarrow ((l4_algstr_0 X0) \wedge (l4_struct_0 X0)) \quad (17)$$

Assume the following.

$$\forall X0. (l4_struct_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l3_struct_0 X0)) \quad (18)$$

Assume the following.

$$\forall X0. (l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (19)$$

Assume the following.

$$m2_subset_1 k6_numbers k1_numbers k5_numbers \quad (20)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (21)$$

Assume the following.

$$\begin{aligned} (v1_funct_1 k35_binop_2) \wedge ((v1_funct_2 k35_binop_2 (k2_zfmisc_1 \\ k1_numbers k1_numbers) k1_numbers) \wedge (m1_subset_1 k35_binop_2 \\ (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers) \\ k1_numbers)))) \end{aligned} \quad (22)$$

Assume the following.

$$\begin{aligned} (v1_funct_1 k33_binop_2) \wedge ((v1_funct_2 k33_binop_2 (k2_zfmisc_1 \\ k1_numbers k1_numbers) k1_numbers) \wedge (m1_subset_1 k33_binop_2 \\ (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers) \\ k1_numbers)))) \end{aligned} \quad (23)$$

Assume the following.

$$(v36_algstr_0 \ k2_vectsp_1) \wedge (l6_algstr_0 \ k2_vectsp_1) \quad (24)$$

Assume the following.

$$\forall X0. (l3_struct_0 \ X0) \Rightarrow (k5_struct_0 \ X0 = u3_struct_0 \ X0) \quad (25)$$

Assume the following.

$$\forall X0. (l2_struct_0 \ X0) \Rightarrow (k4_struct_0 \ X0 = u2_struct_0 \ X0) \quad (26)$$

Assume the following.

$$k2_vectsp_1 = g6_algstr_0 \ k1_numbers \ k33_binop_2 \ k35_binop_2 \ np_1 \ k6_numbers \quad (27)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xreal_0 \ X0) \quad (28)$$

Assume the following.

$$\forall X0. (l6_algstr_0 \ X0) \Rightarrow ((v36_algstr_0 \ X0) \Rightarrow (X0 = g6_algstr_0 \ (u1_struct_0 \ X0) \ (u1_algstr_0 \ X0) \ (u2_algstr_0 \ X0) \ (u3_struct_0 \ X0) \ (u2_struct_0 \ X0))) \quad (29)$$

Theorem 1

$$k3_rlvect_1 \ k2_vectsp_1 \ (k5_struct_0 \ k2_vectsp_1) \ (k5_struct_0 \ k2_vectsp_1) \neq k4_struct_0 \ k2_vectsp_1$$