

l2_algstr_2

(TMV3wee1TuCFUHHNKdRcJKrLjkm2ccBjT8P)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_vectsp_1 : \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k8_group_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k5_complex1 : \iota$ 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 $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ 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 $v2_struct_0 : \iota \Rightarrow o$ 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 $l3_struct_0 : \iota \Rightarrow o$ be given. Let

$l3_algstr_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 (u1_struct_0 k2_vectsp_1)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (u1_struct_0 k2_vectsp_1)) \Rightarrow (\forall X2.(m1_subset_1 \\
& X2 (u1_struct_0 k2_vectsp_1)) \Rightarrow ((k3_rlvect_1 k2_vectsp_1 X0 X1 = \\
& k3_rlvect_1 k2_vectsp_1 X1 X0) \wedge ((k3_rlvect_1 k2_vectsp_1 (k3_rlvect_1 \\
& k2_vectsp_1 X0 X1) X2 = k3_rlvect_1 k2_vectsp_1 X0 (k3_rlvect_1 \\
& k2_vectsp_1 X1 X2)) \wedge ((k3_rlvect_1 k2_vectsp_1 X0 (k4_struct_0 \\
& k2_vectsp_1) = X0) \wedge ((k3_rlvect_1 k2_vectsp_1 X0 (k4_algstr_0 \\
& k2_vectsp_1 X0) = k4_struct_0 k2_vectsp_1) \wedge ((k8_group_1 k2_vectsp_1 \\
& X0 X1 = k8_group_1 k2_vectsp_1 X1 X0) \wedge ((k8_group_1 k2_vectsp_1 \\
& (k8_group_1 k2_vectsp_1 X0 X1) X2 = k8_group_1 k2_vectsp_1 X0 (k8_group_1 \\
& k2_vectsp_1 X1 X2)) \wedge ((k8_group_1 k2_vectsp_1 (k5_struct_0 k2_vectsp_1) \\
& X0 = X0) \wedge ((\neg(X0 \neq k4_struct_0 k2_vectsp_1) \wedge (\forall X3.(m1_subset_1 \\
& X3 (u1_struct_0 k2_vectsp_1)) \Rightarrow (k8_group_1 k2_vectsp_1 X3 X0 \neq \\
& k5_struct_0 k2_vectsp_1))) \wedge ((k8_group_1 k2_vectsp_1 X0 (k3_rlvect_1 \\
& k2_vectsp_1 X1 X2) = k3_rlvect_1 k2_vectsp_1 (k8_group_1 k2_vectsp_1 \\
& X0 X1) (k8_group_1 k2_vectsp_1 X0 X2)) \wedge (k8_group_1 k2_vectsp_1 \\
& (k3_rlvect_1 k2_vectsp_1 X1 X2) X0 = k3_rlvect_1 k2_vectsp_1 (k8_group_1 \\
& k2_vectsp_1 X1 X0) (k8_group_1 k2_vectsp_1 X2 X0)))))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$k5_struct_0 k2_vectsp_1 = np_1 \tag{2}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{3}$$

Assume the following.

$$k5_complex1 = k1_xboole_0 \tag{4}$$

Assume the following.

$$k6_numbers = k4_struct_0 k2_vectsp_1 \tag{5}$$

Assume the following.

$$\begin{aligned}
& (\neg v6_struct_0 k2_vectsp_1) \wedge ((v13_algstr_0 k2_vectsp_1) \wedge ((\\
& v33_algstr_0 k2_vectsp_1) \wedge ((v36_algstr_0 k2_vectsp_1) \wedge ((v2_rlvect_1 \\
& k2_vectsp_1) \wedge ((v3_rlvect_1 k2_vectsp_1) \wedge ((v4_rlvect_1 k2_vectsp_1) \wedge \\
& ((v3_group_1 k2_vectsp_1) \wedge ((v5_group_1 k2_vectsp_1) \wedge ((v3_vectsp_1 \\
& k2_vectsp_1) \wedge ((v5_vectsp_1 k2_vectsp_1) \wedge (v6_vectsp_1 k2_vectsp_1))))))))))
\end{aligned} \tag{6}$$

Assume the following.

$$(\neg v2_struct_0 k2_vectsp_1) \wedge (v36_algstr_0 k2_vectsp_1) \tag{7}$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(l5_algstr_0 X0) \Rightarrow ((l4_algstr_0 X0) \wedge (l4_struct_0 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(l4_algstr_0 X0) \Rightarrow ((l3_struct_0 X0) \wedge (l3_algstr_0 X0)) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge (v5_group_1 \\ X0) \wedge (l3_algstr_0 X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge \\ m1_subset_1 X2 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k8_group_1 \\ X0 X1 X2) (u1_struct_0 X0)) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.(l3_struct_0 X0) \Rightarrow (m1_subset_1 (k5_struct_0 X0) (u1_struct_0 X0)) \quad (12)$$

Assume the following.

$$(v36_algstr_0 k2_vectsp_1) \wedge (l6_algstr_0 k2_vectsp_1) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge (v5_group_1 \\ X0) \wedge (l3_algstr_0 X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge \\ m1_subset_1 X2 (u1_struct_0 X0))) \Rightarrow (k8_group_1 X0 X1 X2 = k8_group_1 \\ X0 X2 X1) \end{aligned} \quad (14)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 (u1_struct_0 k2_vectsp_1)) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (u1_struct_0 k2_vectsp_1)) \Rightarrow (\neg (X0 \neq k4_struct_0 \\ k2_vectsp_1) \wedge (\forall X2.(m1_subset_1 X2 (u1_struct_0 k2_vectsp_1)) \Rightarrow \\ (k8_group_1 k2_vectsp_1 X0 X2 \neq X1)))) \end{aligned}$$