

t60_vectsp_5 (TMSoN- ahAubh3hhUgWkKyzSWnANSUYYSuLks)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ 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 $g3_lattices : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_vectsp_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_vectsp_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_vectsp_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $v15_lattices : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $v14_lattices : \iota \Rightarrow o$ be given. Let $v13_lattices : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\
& X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\
& ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow \\
& (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v8_vectsp_1 \\
& X1 X0) \wedge ((v9_vectsp_1 X1 X0) \wedge ((v10_vectsp_1 X1 X0) \wedge ((v11_vectsp_1 \\
& X1 X0) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge \\
& (l1_vectsp_1 X1 X0)))))))))) \Rightarrow ((\neg v2_struct_0 (g3_lattices (k3_vectsp_5 \\
& X0 X1) (k5_vectsp_5 X0 X1) (k6_vectsp_5 X0 X1))) \wedge ((v10_lattices \\
& (g3_lattices (k3_vectsp_5 X0 X1) (k5_vectsp_5 X0 X1) (k6_vectsp_5 \\
& X0 X1))) \wedge ((v14_lattices (g3_lattices (k3_vectsp_5 X0 X1) (k5_vectsp_5 \\
& X0 X1) (k6_vectsp_5 X0 X1))) \wedge (l3_lattices (g3_lattices (k3_vectsp_5 \\
& X0 X1) (k5_vectsp_5 X0 X1) (k6_vectsp_5 X0 X1))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\
& X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\
& ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow \\
& (\forall X1.((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v8_vectsp_1 \\
& X1 X0) \wedge ((v9_vectsp_1 X1 X0) \wedge ((v10_vectsp_1 X1 X0) \wedge ((v11_vectsp_1 \\
& X1 X0) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge \\
& (l1_vectsp_1 X1 X0)))))))))) \Rightarrow ((\neg v2_struct_0 (g3_lattices (k3_vectsp_5 \\
& X0 X1) (k5_vectsp_5 X0 X1) (k6_vectsp_5 X0 X1))) \wedge ((v10_lattices \\
& (g3_lattices (k3_vectsp_5 X0 X1) (k5_vectsp_5 X0 X1) (k6_vectsp_5 \\
& X0 X1))) \wedge ((v13_lattices (g3_lattices (k3_vectsp_5 X0 X1) (k5_vectsp_5 \\
& X0 X1) (k6_vectsp_5 X0 X1))) \wedge (l3_lattices (g3_lattices (k3_vectsp_5 \\
& X0 X1) (k5_vectsp_5 X0 X1) (k6_vectsp_5 X0 X1)))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(l3_lattices X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v13_lattices X0) \wedge (v14_lattices X0))) \Rightarrow ((\neg v2_struct_0 X0) \wedge (v15_lattices X0))) \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\
& X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\
& ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow \\
& (\forall X1.((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v8_vectsp_1 \\
& X1 X0) \wedge ((v9_vectsp_1 X1 X0) \wedge ((v10_vectsp_1 X1 X0) \wedge ((v11_vectsp_1 \\
& X1 X0) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge \\
& (l1_vectsp_1 X1 X0)))))))))) \Rightarrow ((\neg v2_struct_0 (g3_lattices (k3_vectsp_5 \\
& X0 X1) (k5_vectsp_5 X0 X1) (k6_vectsp_5 X0 X1))) \wedge ((v10_lattices \\
& (g3_lattices (k3_vectsp_5 X0 X1) (k5_vectsp_5 X0 X1) (k6_vectsp_5 \\
& X0 X1))) \wedge ((v15_lattices (g3_lattices (k3_vectsp_5 X0 X1) (k5_vectsp_5 \\
& X0 X1) (k6_vectsp_5 X0 X1))) \wedge (l3_lattices (g3_lattices (k3_vectsp_5 \\
& X0 X1) (k5_vectsp_5 X0 X1) (k6_vectsp_5 X0 X1)))))))))
\end{aligned}$$