

t146_zmodul01

(TMQT5PCEAAFF5uf9rAnHdnPCLRjzRkSxjhK)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ 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 $v2_zmodul01 : \iota \Rightarrow o$ be given. Let $v3_zmodul01 : \iota \Rightarrow o$ be given. Let $v4_zmodul01 : \iota \Rightarrow o$ be given. Let $v5_zmodul01 : \iota \Rightarrow o$ be given. Let $l1_zmodul01 : \iota \Rightarrow o$ be given. Let $g3_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_zmodul01 : \iota \Rightarrow \iota$ be given. Let $k10_zmodul01 : \iota \Rightarrow \iota$ be given. Let $k11_zmodul01 : \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v2_zmodul01 X0) \wedge \\ & ((v3_zmodul01 X0) \wedge ((v4_zmodul01 X0) \wedge ((v5_zmodul01 X0) \wedge (l1_zmodul01 \\ & X0)))))))))) \Rightarrow (v14_lattices (g3_lattices (k8_zmodul01 X0) (k10_zmodul01 \\ & X0) (k11_zmodul01 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v2_zmodul01 X0) \wedge \\ & ((v3_zmodul01 X0) \wedge ((v4_zmodul01 X0) \wedge ((v5_zmodul01 X0) \wedge (l1_zmodul01 \\ & X0)))))))))) \Rightarrow (v13_lattices (g3_lattices (k8_zmodul01 X0) (k10_zmodul01 \\ & X0) (k11_zmodul01 X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v2_zmodul01 X0) \wedge \\ & ((v3_zmodul01 X0) \wedge ((v4_zmodul01 X0) \wedge ((v5_zmodul01 X0) \wedge (l1_zmodul01 \\ & X0)))))))))) \Rightarrow ((\neg v2_struct_0 (g3_lattices (k8_zmodul01 X0) (\\ & k10_zmodul01 X0) (k11_zmodul01 X0))) \wedge ((v10_lattices (g3_lattices \\ & (k8_zmodul01 X0) (k10_zmodul01 X0) (k11_zmodul01 X0))) \wedge (l3_lattices \\ & (g3_lattices (k8_zmodul01 X0) (k10_zmodul01 X0) (k11_zmodul01 \\ & X0)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.(l3_lattices\ X0)\Rightarrow(((\neg v2_struct_0\ X0)\wedge((v13_lattices\ X0)\wedge(v14_lattices\ X0)))\Rightarrow((\neg v2_struct_0\ X0)\wedge(v15_lattices\ X0))) \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0\ X0)\wedge((v13_algstr_0\ X0)\wedge((v2_rlvect_1\ X0)\wedge(v3_rlvect_1\ X0)\wedge(v4_rlvect_1\ X0)\wedge(v2_zmodul01\ X0)\wedge \\ & ((v3_zmodul01\ X0)\wedge(v4_zmodul01\ X0)\wedge(v5_zmodul01\ X0)\wedge(l1_zmodul01\ X0))))))\Rightarrow((\neg v2_struct_0\ (g3_lattices\ (k8_zmodul01\ X0)\ (\\ & k10_zmodul01\ X0)\ (k11_zmodul01\ X0)))\wedge((v10_lattices\ (g3_lattices\ (k8_zmodul01\ X0)\ (k10_zmodul01\ X0)\ (k11_zmodul01\ X0)))\wedge((v15_lattices \\ & (g3_lattices\ (k8_zmodul01\ X0)\ (k10_zmodul01\ X0)\ (k11_zmodul01\ X0)))\wedge(l3_lattices\ (g3_lattices\ (k8_zmodul01\ X0)\ (k10_zmodul01 \\ & X0)\ (k11_zmodul01\ X0)))))) \end{aligned}$$