

t35_lopclset
(TMMj3sRGZnPQjh3vxBfnB5k54qVQesP83mN)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $v17_lattices : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $r1_filter_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_lopclset : \iota \Rightarrow \iota$ be given. Let $k13_lopclset : \iota \Rightarrow \iota$ be given. Let $k8_lopclset : \iota \Rightarrow \iota$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_lattice4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0))))) \Rightarrow (k13_lopclset X0 = k8_lopclset X0) \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0))))) \Rightarrow ((v1_funct_1 (k8_lopclset X0)) \wedge ((v1_funct_2 (k8_lopclset X0) (u1_struct_0 X0) (u1_struct_0 (k12_lopclset X0))) \wedge (v3_funct_2 (k8_lopclset X0) (u1_struct_0 X0) (u1_struct_0 (k12_lopclset X0))))) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0))))) \Rightarrow (m1_lattice4 (k13_lopclset X0) X0 (k12_lopclset X0)) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0))))) \Rightarrow ((\neg v2_struct_0 (k12_lopclset X0)) \wedge ((v10_lattices (k12_lopclset X0)) \wedge (l3_lattices (k12_lopclset X0)))) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices \\ X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v10_lattices X1) \wedge (l3_lattices \\ X1))) \Rightarrow ((r1_filter_1 X0 X1) \Leftrightarrow (\exists X2.(m1_lattice4 X2 X0 X1) \wedge \\ (v3_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)))))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices \\ X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0))))) \Rightarrow (r1_filter_1 X0 \\ (k12_lopclset X0)) \end{aligned}$$