

l8_lattice6

(TMWruEM4MHVrQ7TKnFvHsHDp3tWt3XoH5dS)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v8_struct_0 : \iota \Rightarrow o$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $v1_wellfnd1 : \iota \Rightarrow o$ be given. Let $k7_lattice3 : \iota \Rightarrow \iota$ be given. Let $k3_lattice3 : \iota \Rightarrow \iota$ be given. Let $k1_lattice2 : \iota \Rightarrow \iota$ be given. Let $k6_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_lattice3 : \iota \Rightarrow \iota$ be given. Let $v3_lattices : \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \Rightarrow ((v8_struct_0 X0) \Leftrightarrow (v8_struct_0 (k1_lattice2 X0))) \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \Rightarrow ((k6_lattice3 (u1_struct_0 X0) (k2_lattice3 X0) = k2_lattice3 (k1_lattice2 X0)) \wedge (k7_lattice3 (k3_lattice3 X0) = k3_lattice3 (k1_lattice2 X0))) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \Rightarrow ((v3_lattices (k1_lattice2 X0)) \wedge (v10_lattices (k1_lattice2 X0))) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v8_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0)))) \Rightarrow ((v1_orders_2 (k3_lattice3 X0)) \wedge ((v3_orders_2 (k3_lattice3 X0)) \wedge ((v4_orders_2 (k3_lattice3 X0)) \wedge ((v5_orders_2 (k3_lattice3 X0)) \wedge (v1_wellfnd1 (k3_lattice3 X0)))))) \quad (4)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l3_lattices X0)) \Rightarrow ((\neg v2_struct_0 (k1_lattice2 X0)) \wedge (v3_lattices (k1_lattice2 X0))) \quad (5)$$

Assume the following.

$$\forall X0.(l3_lattices X0) \Rightarrow ((v3_lattices (k1_lattice2 X0)) \wedge (l3_lattices (k1_lattice2 X0))) \quad (6)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge (v8_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \Rightarrow (v1_wellfnd1 (k7_lattice3 (k3_lattice3 X0)))$$