

t12_sheffer1

(TMRWyVNow6ikEypeG8ji1s4iqWk9tqi9eCJ)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v4_lattices : \iota \Rightarrow o$ be given. Let $v6_lattices : \iota \Rightarrow o$ be given. Let $v11_lattices : \iota \Rightarrow o$ be given. Let $v7_robbins1 : \iota \Rightarrow o$ be given. Let $v1_sheffer1 : \iota \Rightarrow o$ be given. Let $v2_sheffer1 : \iota \Rightarrow o$ be given. Let $v3_sheffer1 : \iota \Rightarrow o$ be given. Let $v4_sheffer1 : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $v14_lattices : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_sheffer1 : \iota \Rightarrow \iota$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $k1_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_lattices : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v4_lattices X0) \wedge ((v6_lattices \\ & X0) \wedge ((v11_lattices X0) \wedge ((v7_robbins1 X0) \wedge ((v1_sheffer1 X0) \wedge \\ & ((v3_sheffer1 X0) \wedge ((v4_sheffer1 X0) \wedge (l3_lattices X0))))))) \Rightarrow \\ & (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k3_lattices X0 \\ & X1 (k1_sheffer1 X0) = k1_sheffer1 X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v4_lattices \\ & X0) \wedge (l2_lattices X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (\\ & m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (k3_lattices X0 X1 X2 = k1_lattices \\ & X0 X1 X2) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. (l3_lattices X0) \Rightarrow ((l1_lattices X0) \wedge (l2_lattices X0)) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l3_lattices X0)) \Rightarrow (m1_subset_1 (k1_sheffer1 X0) (u1_struct_0 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l2_lattices X0)) \Rightarrow ((v14_lattices \\ & X0) \Leftrightarrow (\exists X1. (m1_subset_1 X1 (u1_struct_0 X0)) \wedge (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k1_lattices X0 X1 X2 = X1) \wedge \\ & (k1_lattices X0 X2 X1 = X1))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0\ X0) \wedge (v4_lattices\ X0) \wedge (l2_lattices\ X0)) \wedge ((m1_subset_1\ X1\ (u1_struct_0\ X0)) \wedge (m1_subset_1\ X2\ (u1_struct_0\ X0)))) \Rightarrow (k3_lattices\ X0\ X1\ X2 = k3_lattices\ X0\ X2\ X1) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0. (((\neg v2_struct_0\ X0) \wedge (v4_lattices\ X0) \wedge (v6_lattices\ X0) \wedge (v11_lattices\ X0) \wedge (v7_robbins1\ X0) \wedge (v1_sheffer1\ X0) \wedge ((v2_sheffer1\ X0) \wedge (v3_sheffer1\ X0) \wedge (v4_sheffer1\ X0) \wedge (l3_lattices\ X0)))))) \Rightarrow (v14_lattices\ X0) \end{aligned}$$