

t21_sheffer1 (TMUUeKX-
CANbtCpMA3EnLVSe29P1Achy53Wk)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $v11_lattices : \iota \Rightarrow o$ be given. Let $v13_lattices : \iota \Rightarrow o$ be given. Let $v14_lattices : \iota \Rightarrow o$ be given. Let $v16_lattices : \iota \Rightarrow o$ be given. Let $v17_lattices : \iota \Rightarrow o$ be given. Let $v3_sheffer1 : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $k5_lattices : \iota \Rightarrow \iota$ be given. Let $k2_sheffer1 : \iota \Rightarrow \iota$ be given. Let $v2_sheffer1 : \iota \Rightarrow o$ be given. Let $l1_lattices : \iota \Rightarrow o$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v8_lattices : \iota \Rightarrow o$ be given. Let $k1_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_lattices : \iota \Rightarrow o$ be given. Let $v5_lattices : \iota \Rightarrow o$ be given. Let $v6_lattices : \iota \Rightarrow o$ be given. Let $v7_lattices : \iota \Rightarrow o$ be given. Let $v9_lattices : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v17_lattices X0) \wedge (l3_lattices X0)))) \Rightarrow (v2_sheffer1 X0) \quad (1)$$

Assume the following.

$$\forall X0.(l3_lattices X0) \Rightarrow ((l1_lattices X0) \wedge (l2_lattices X0)) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_lattices X0)) \Rightarrow (m1_subset_1 (k5_lattices X0) (u1_struct_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l3_lattices X0)) \Rightarrow (m1_subset_1 (k2_sheffer1 X0) (u1_struct_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l3_lattices X0)) \Rightarrow ((v8_lattices X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (k1_lattices X0 (k2_lattices X0 X1 X2) X2 = X2)))) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l3_lattices X0)) \Rightarrow ((v2_shef fer1 \\ & X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((X1 = k2_shef fer1 \\ & X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k1_lattices \\ & X0 X1 X2 = X2) \wedge (k1_lattices X0 X2 X1 = X2)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_lattices X0)) \Rightarrow ((v13_lattices \\ & X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((X1 = k5_lattices \\ & X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k2_lattices \\ & X0 X1 X2 = X1) \wedge (k2_lattices X0 X2 X1 = X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l3_lattices X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge (v10_lattices \\ & X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v4_lattices X0) \wedge ((v5_lattices X0) \wedge \\ & ((v6_lattices X0) \wedge ((v7_lattices X0) \wedge ((v8_lattices X0) \wedge (v9_lattices \\ & X0)))))))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v11_lattices \\ & X0) \wedge ((v13_lattices X0) \wedge ((v14_lattices X0) \wedge ((v16_lattices X0) \wedge \\ & ((v17_lattices X0) \wedge ((v3_shef fer1 X0) \wedge (l3_lattices X0)))))))) \Rightarrow \\ & (k5_lattices X0 = k2_shef fer1 X0) \end{aligned}$$