

t33_sheffer1 (TMZrJyr- CwY9BxidG1scY2MPNNRTu2cLZDaW)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v9_sheffer1 : \iota \Rightarrow o$ be given. Let $v10_sheffer1 : \iota \Rightarrow o$ be given. Let $v11_sheffer1 : \iota \Rightarrow o$ be given. Let $v12_sheffer1 : \iota \Rightarrow o$ be given. Let $l3_sheffer1 : \iota \Rightarrow o$ be given. Let $v4_lattices : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_sheffer1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l4_robbins1 : \iota \Rightarrow o$ be given. Let $l2_robbins1 : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $l1_sheffer1 : \iota \Rightarrow o$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $l1_robbins1 : \iota \Rightarrow o$ be given. Let $k3_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v9_sheffer1 X0) \wedge ((v10_sheffer1 \\ & X0) \wedge ((v11_sheffer1 X0) \wedge ((v12_sheffer1 X0) \wedge (l3_sheffer1 X0)))))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 X0)) \Rightarrow (k5_sheffer1 X0 X1 X2 = k5_sheffer1 X0 X2 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(l4_robbins1 X0) \Rightarrow ((l2_robbins1 X0) \wedge (l3_lattices X0)) \quad (2)$$

Assume the following.

$$\forall X0.(l3_sheffer1 X0) \Rightarrow ((l1_sheffer1 X0) \wedge (l4_robbins1 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(l2_robbins1 X0) \Rightarrow ((l2_lattices X0) \wedge (l1_robbins1 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_robbins1 X0)) \wedge \\ & (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k3_robbins1 \\ & X0 X1) (u1_struct_0 X0)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l2_lattices X0)) \Rightarrow ((v4_lattices \\ & X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (k1_lattices X0 X1 X2 = k1_lattices \\ & X0 X2 X1)))) \end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l3_sheffer1 X0)) \Rightarrow ((v9_sheffer1 \\ & X0) \Leftrightarrow ((\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k5_sheffer1 \\ & X0 X1 X1 = k3_robbins1 X0 X1)) \wedge ((\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (k1_lattices \\ & X0 X1 X2 = k5_sheffer1 X0 (k5_sheffer1 X0 X1 X1) (k5_sheffer1 X0 X2 \\ & X2)))) \wedge ((\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (k2_lattices X0 X1 X2 = k5_sheffer1 \\ & X0 (k5_sheffer1 X0 X1 X2) (k5_sheffer1 X0 X1 X2)))) \wedge (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (k5_sheffer1 X0 X1 X2 = k1_lattices X0 (k3_robbins1 \\ & X0 X1) (k3_robbins1 X0 X2)))))))))) \end{aligned} \tag{7}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v9_sheffer1 X0) \wedge ((v10_sheffer1 \\ & X0) \wedge ((v11_sheffer1 X0) \wedge ((v12_sheffer1 X0) \wedge (l3_sheffer1 X0)))))) \Rightarrow \\ & (v4_lattices X0) \end{aligned}$$