

t29_sheffer2
(TMcx16wrEpn2m2a9tW8AytYutr46JLF86De)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_sheffer2 : \iota \Rightarrow o$ be given. Let $l1_sheffer1 : \iota \Rightarrow o$ 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. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v1_sheffer2 X0) \wedge (l1_sheffer1 \\ & \quad X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & \quad (u1_struct_0 X0)) \Rightarrow (k5_sheffer1 X0 (k5_sheffer1 X0 X1 (k5_sheffer1 \\ & \quad X0 X2 X3)) (k5_sheffer1 X0 X2 X1) = X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v1_sheffer2 X0) \wedge (l1_sheffer1 \\ & \quad X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & \quad (u1_struct_0 X0)) \Rightarrow (k5_sheffer1 X0 X1 (k5_sheffer1 X0 (k5_sheffer1 \\ & \quad X0 X1 X2) (k5_sheffer1 X0 X3 X2)) = k5_sheffer1 X0 X1 X2)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge (l1_sheffer1 \\ & \quad X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 \\ & \quad X0)))) \Rightarrow (m1_subset_1 (k5_sheffer1 X0 X1 X2) (u1_struct_0 X0)) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v1_sheffer2 X0) \wedge (l1_sheffer1 \\ & \quad X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & \quad (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ & \quad (k5_sheffer1 X0 (k5_sheffer1 X0 X1 (k5_sheffer1 X0 X2 X3)) (k5_sheffer1 \\ & \quad X0 X1 (k5_sheffer1 X0 X4 (k5_sheffer1 X0 X2 X1))) = k5_sheffer1 X0 \\ & \quad (k5_sheffer1 X0 X1 (k5_sheffer1 X0 X2 X3)) (k5_sheffer1 X0 X2 X1)))))) \end{aligned}$$