

t56_sheffer2

(TMbV9fVKVccpWWtbkqT7jXyoK67QZjE4tyQ)

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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.

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

Assume the following.

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

Assume the following.

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

Theorem 1

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