

t66_sheffer2

(TMH5tNfnNLkmkhQ4boSEgtounedL5K2F1EQ)

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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.

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

Assume the following.

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

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

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