

t161_sheffer2

(TMLPwstyTrsK3213EJJCyPdckuZ6y3WuX7e6)

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

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v10_sheffer1 X0) \wedge ((v11_sheffer1 \\ X0) \wedge ((v12_sheffer1 X0) \wedge (l1_sheffer1 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow (k5_sheffer1 X0 X2 X1 = k5_sheffer1 X0 X1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v10_sheffer1 X0) \wedge ((v11_sheffer1 \\ X0) \wedge ((v12_sheffer1 X0) \wedge (l1_sheffer1 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (k5_sheffer1 \\ X0 (k5_sheffer1 X0 X1 X3) (k5_sheffer1 X0 X1 (k5_sheffer1 X0 X3 X2)) = \\ X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v10_sheffer1 X0) \wedge ((v11_sheffer1 \\ X0) \wedge ((v12_sheffer1 X0) \wedge (l1_sheffer1 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow (k5_sheffer1 X0 X1 (k5_sheffer1 X0 (k5_sheffer1 X0 X2 X1) X1) = \\ k5_sheffer1 X0 X2 X1))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_sheffer1 X0)) \Rightarrow ((v1_sheffer2 \\
& X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\
& (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\
& (u1_struct_0 X0)) \Rightarrow (k5_sheffer1 X0 (k5_sheffer1 X0 X1 (k5_sheffer1 \\
& X0 (k5_sheffer1 X0 X2 X1) X1)) (k5_sheffer1 X0 X2 (k5_sheffer1 X0 \\
& X3 X1)) = X2))))))
\end{aligned} \tag{4}$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v10_sheffer1 X0) \wedge ((v11_sheffer1 X0) \wedge ((v12_sheffer1 X0) \wedge (l1_sheffer1 X0)))))) \Rightarrow (v1_sheffer2 X0)$$