

# t48\_sheffer2 (TMWTxkTd- cfh88LB72bt6WctwEnXxx3kyC1Q)

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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.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v1\_sheffer2 X0) \wedge (l1\_sheffer1 \\ & \quad X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 \\ & \quad (u1\_struct\_0 X0)) \Rightarrow (k5\_sheffer1 X0 (k5\_sheffer1 X0 X1 (k5\_sheffer1 \\ & \quad X0 X2 X3)) (k5\_sheffer1 X0 X1 (k5\_sheffer1 X0 X2 X2)) = k5\_sheffer1 \\ & \quad X0 (k5\_sheffer1 X0 X1 (k5\_sheffer1 X0 X2 X3)) (k5\_sheffer1 X0 X1 ( \\ & \quad \quad k5\_sheffer1 X0 X2 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v1\_sheffer2 X0) \wedge (l1\_sheffer1 \\ & \quad X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 \\ & \quad (u1\_struct\_0 X0)) \Rightarrow (k5\_sheffer1 X0 (k5\_sheffer1 X0 (k5\_sheffer1 \\ & \quad X0 X1 X2) (k5\_sheffer1 X0 X1 X3)) X3 = k5\_sheffer1 X0 X1 X3)))) \end{aligned} \tag{2}$$

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

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v1\_sheffer2 X0) \wedge (l1\_sheffer1 \\ & \quad X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 \\ & \quad (u1\_struct\_0 X0)) \Rightarrow (k5\_sheffer1 X0 (k5\_sheffer1 X0 (k5\_sheffer1 \\ & \quad X0 X1 (k5\_sheffer1 X0 X2 X3)) (k5\_sheffer1 X0 X1 (k5\_sheffer1 X0 X2 \\ & \quad X3)) (k5\_sheffer1 X0 X2 X2) = k5\_sheffer1 X0 X1 (k5\_sheffer1 X0 X2 \\ & \quad \quad X2)))))) \end{aligned}$$