

t29\_sheffer1

(TMag75gzcEuJq54B5q3Dg4xupSZWUtPPZoR)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v12\_sheffer1 : \iota \Rightarrow o$  be given. Let  $l3\_sheffer1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k6\_sheffer1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_sheffer1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_sheffer1 : \iota \Rightarrow o$  be given. Let  $l4\_robbins1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(l3\_sheffer1 X0) \Rightarrow ((l1\_sheffer1 X0) \wedge (l4\_robbins1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0) \wedge (l1\_sheffer1 X0)) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 X0)))) \Rightarrow (m1\_subset\_1 (k5\_sheffer1 X0 X1 X2) (u1\_struct\_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_sheffer1 X0)) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (k6\_sheffer1 X0 X1 = k5\_sheffer1 X0 X1 X1)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_sheffer1 X0)) \Rightarrow & ((v12\_sheffer1 X0) \Leftrightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\ & (u1\_struct\_0 X0)) \Rightarrow (k5\_sheffer1 X0 (k5\_sheffer1 X0 X1 (k5\_sheffer1 \\ & X0 X2 X3)) (k5\_sheffer1 X0 X1 (k5\_sheffer1 X0 X2 X3)) = k5\_sheffer1 \\ & X0 (k5\_sheffer1 X0 (k5\_sheffer1 X0 X2 X2) X1) (k5\_sheffer1 X0 (k5\_sheffer1 \\ & X0 X3 X3) X1)))))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v12\_sheffer1 X0) \wedge (l3\_sheffer1 \\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3.(m1\_subset\_1 X3 \\ (u1\_struct\_0 X0)) \Rightarrow (k6\_sheffer1 X0 (k5\_sheffer1 X0 X1 (k5\_sheffer1 \\ X0 X2 X3)) = k5\_sheffer1 X0 (k5\_sheffer1 X0 (k6\_sheffer1 X0 X2) X1) \\ (k5\_sheffer1 X0 (k6\_sheffer1 X0 X3) X1)))))) \end{aligned}$$