

## t58\_sheffer2

(TMJ9gwwDyFasqNczrqDf3DiQHkBiKFWnLAB)

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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.

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

Assume the following.

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

### Theorem 1

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