

# t9\_sheffer2 (TMUBdHEfpy- brT2AY1iiu1amAkMXqbg2HaVY)

October 27, 2020

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.

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

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0) \wedge (l1\_sheffer1 \\ & X0)) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 \\ & X0)))) \Rightarrow (m1\_subset\_1 (k5\_sheffer1 X0 X1 X2) (u1\_struct\_0 X0)) \end{aligned} \tag{3}$$

**Theorem 1**

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