t138_sheffer2 (TMaQ9csonmJG1qKRbN4Hvxs33vjBCvXwqYq)

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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 $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_sheffer1\ X0) \wedge ((v11\_sheffer1\ X0) \wedge ((v12\_sheffer1\ X0) \wedge (l1\_sheffer1\ X0))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X0)) \Rightarrow (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X5\ (k5\_sheffer1\ X0\ X4\ (k5\_sheffer1\ X0\ X4\ X4)))\ X3)\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X2\ X2)\ X3))\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X3\ (k5\_sheffer1\ X0\ X5\ X2))\ (k5\_sheffer1\ X0\ X3\ (k5\_sheffer1\ X0\ X5\ X2))) = k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X3\ (k5\_sheffer1\ X0\ X1\ (k5\_sheffer1\ X0\ X1\ X1)))\ (k5\_sheffer1\ X0\ X3\ (k5\_sheffer1\ X0\ X5\ X2)))\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X5\ X2)\ (k5\_sheffer1\ X0\ X5\ X2))\ (k5\_sheffer1\ X0\ X3\ (k5\_sheffer1\ X0\ X5\ X2)))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_sheffer1\ X0) \wedge ((v11\_sheffer1\ X0) \wedge ((v12\_sheffer1\ X0) \wedge (l1\_sheffer1\ X0))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X3\ (k5\_sheffer1\ X0\ X2\ (k5\_sheffer1\ X0\ X2\ X2)))\ (k5\_sheffer1\ X0\ X3\ X1) = X3)))) \tag{2}$$

Assume the following.

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

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v10\_sheffer1\ X0)\wedge((v11\_sheffer1\ X0)\wedge((v12\_sheffer1\ X0)\wedge(l1\_sheffer1\ X0)))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\Rightarrow(k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X4\ (k5\_sheffer1\ X0\ X3\ (k5\_sheffer1\ X0\ X3\ X3)))\ X2)\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X1\ X1)\ X2))\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X2\ (k5\_sheffer1\ X0\ X4\ X1))\ (k5\_sheffer1\ X0\ X2\ (k5\_sheffer1\ X0\ X4\ X1)))) = k5\_sheffer1\ X0\ X2\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ (k5\_sheffer1\ X0\ X4\ X1)\ (k5\_sheffer1\ X0\ X4\ X1))\ (k5\_sheffer1\ X0\ X2\ (k5\_sheffer1\ X0\ X4\ X1))))))))$$