t2_scmfsa10 (TMdQzi9965eTb7BFpPDq4TSXAmEReHjZELZ)

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Let $v1\_ami\_2 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_scmfsa\_2 : \iota$ be given. Let $k6\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_compos\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_ami\_3 : \iota$ be given. Let $k2\_ami\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0) \wedge (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2))) \wedge ((v1\_ami\_2\ X1) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))) \Rightarrow (m1\_subset\_1\ (k6\_scmfsa\_2\ X0\ X1)\ (u1\_compos\_1\ k1\_scmfsa\_2)) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_ami\_2\ X0) \wedge (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (\forall X1.((v1\_ami\_2\ X1) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_compos\_1\ k1\_scmfsa\_2)) \Rightarrow ((X2 = k6\_scmfsa\_2\ X0\ X1) \Leftrightarrow (\exists X3.((v1\_ami\_2\ X3) \wedge (m1\_subset\_1\ X3\ (u1\_struct\_0\ k1\_ami\_3))) \wedge (\exists X4.((v1\_ami\_2\ X4) \wedge (m1\_subset\_1\ X4\ (u1\_struct\_0\ k1\_ami\_3))) \wedge ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = k2\_ami\_3\ X3\ X4)))))))) \tag{2}$$

Assume the following.

$$\forall X0.((v1\_ami\_2\ X0) \wedge (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_ami\_3))) \Rightarrow (\forall X1.((v1\_ami\_2\ X1) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_ami\_3))) \Rightarrow (k2\_ami\_3\ X0\ X1 = k3\_xtuple\_0\ np\_\_1\ k1\_xboole\_0\ (k10\_finseq\_1\ X0\ X1))) \tag{3}$$

Theorem 1

$$\forall X0.((v1\_ami\_2\ X0) \wedge (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (\forall X1.((v1\_ami\_2\ X1) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (k6\_scmfsa\_2\ X0\ X1 = k3\_xtuple\_0\ np\_\_1\ k1\_xboole\_0\ (k10\_finseq\_1\ X0\ X1)))$$