

# t4\_scmfsa10 (TMNuaWaYmCjsb- Vckk7E9yQUY3pv3BLZjUvh)

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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  $k8\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_3 : \iota$  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  $k4\_ami\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1\_ami\_2 X0) \wedge (m1\_subset\_1 X0 (u1\_struct\_0 \\ & k1\_scmfsa\_2))) \wedge ((v1\_ami\_2 X1) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 \\ & k1\_scmfsa\_2)))) \Rightarrow (m1\_subset\_1 (k8\_scmfsa\_2 X0 X1) (u1\_compos\_1 \\ & k1\_scmfsa\_2)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_ami\_2 X0) \wedge (m1\_subset\_1 X0 (u1\_struct\_0 k1\_ami\_3))) \Rightarrow \\ & (\forall X1. ((v1\_ami\_2 X1) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 k1\_ami\_3))) \Rightarrow \\ & (k4\_ami\_3 X0 X1 = k3\_xtuple\_0 np\_3 k1\_xboole\_0 (k10\_finseq\_1 X0 \\ & X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_ami\_2 X0) \wedge (m1\_subset\_1 X0 (u1\_struct\_0 k1\_scmfsa\_2))) \Rightarrow \\ & (\forall X1. ((v1\_ami\_2 X1) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 k1\_scmfsa\_2))) \Rightarrow \\ & (\forall X2. (m1\_subset\_1 X2 (u1\_compos\_1 k1\_scmfsa\_2)) \Rightarrow ((X2 = \\ & k8\_scmfsa\_2 X0 X1) \Leftrightarrow (\exists X3. ((v1\_ami\_2 X3) \wedge (m1\_subset\_1 X3 \\ & (u1\_struct\_0 k1\_ami\_3))) \wedge (\exists X4. ((v1\_ami\_2 X4) \wedge (m1\_subset\_1 \\ & X4 (u1\_struct\_0 k1\_ami\_3))) \wedge ((X0 = X3) \wedge ((X1 = X4) \wedge (X2 = k4\_ami\_3 \\ & X3 X4)))))))))) \end{aligned} \quad (3)$$

## Theorem 1

$$\begin{aligned} & \forall X0. ((v1\_ami\_2 X0) \wedge (m1\_subset\_1 X0 (u1\_struct\_0 k1\_scmfsa\_2))) \Rightarrow \\ & (\forall X1. ((v1\_ami\_2 X1) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 k1\_scmfsa\_2))) \Rightarrow \\ & (k8\_scmfsa\_2 X0 X1 = k3\_xtuple\_0 np\_3 k1\_xboole\_0 (k10\_finseq\_1 \\ & X0 X1))) \end{aligned}$$