

t28\_scmfsa\_2  
 (TMZrGYtHp6qqyBdJkTq5C2HbxY8jw54jqTw)

October 27, 2020

Let  $m1\_scmfsa\_2 : \iota \Rightarrow o$  be given. 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  $k2\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_compos\_1 : \iota \Rightarrow \iota$  be given. Let  $k16\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_11 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_compos\_0 : \iota \Rightarrow o$  be given. Let  $k4\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_compos\_1 : \iota \Rightarrow o$  be given. Let  $v2\_compos\_0 : \iota \Rightarrow o$  be given. Let  $v3\_compos\_0 : \iota \Rightarrow o$  be given. Let  $v5\_compos\_0 : \iota \Rightarrow o$  be given. Let  $l1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$  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. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v1\_xboole\_0 X0) \wedge (v1\_compos\_0 X0)) \wedge \\ & (m1\_subset\_1 X1 X0)) \Rightarrow (k2\_compos\_0 X0 X1 = k4\_xtuple\_0 X1) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. k4\_xtuple\_0 (k3\_xtuple\_0 X0 \\ & X1 X2) = X0 \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1\_compos\_1 X0) \Rightarrow ((v1\_compos\_0 (u1\_compos\_1 X0)) \wedge \\ & ((v2\_compos\_0 (u1\_compos\_1 X0)) \wedge ((v3\_compos\_0 (u1\_compos\_1 \\ & X0)) \wedge (v5\_compos\_0 (u1\_compos\_1 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (l1\_extpro\_1 X1 X0) \Rightarrow ((l1\_memstr\_0 X1 X0) \wedge \\ & (l1\_compos\_1 X1)) \end{aligned} \quad (4)$$

Assume the following.

$$(v1\_extpro\_1 k1\_scmfsa\_2 np\_3) \wedge (l1\_extpro\_1 k1\_scmfsa\_2 np\_3) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2 X0)\wedge(m1\_subset\_1 X0 (u1\_struct\_0 k1\_scmfsa\_2)))\wedge(m1\_scmfsa\_2 X1))\Rightarrow(m1\_subset\_1 (k16\_scmfsa\_2 X0 X1) (u1\_compos\_1 k1\_scmfsa\_2)) \quad (6)$$

Assume the following.

$$\forall X0.((v1\_ami\_2 X0)\wedge(m1\_subset\_1 X0 (u1\_struct\_0 k1\_scmfsa\_2)))\Rightarrow(\forall X1.(m1\_scmfsa\_2 X1)\Rightarrow(k16\_scmfsa\_2 X0 X1 = k3\_xtuple\_0 np\_11 k1\_xboole\_0 (k10\_finseq\_1 X0 X1))) \quad (7)$$

Assume the following.

$$\forall X0.(v5\_compos\_0 X0)\Rightarrow(\neg v1\_xboole\_0 X0) \quad (8)$$

**Theorem 1**

$$\forall X0.(m1\_scmfsa\_2 X0)\Rightarrow(\forall X1.((v1\_ami\_2 X1)\wedge(m1\_subset\_1 X1 (u1\_struct\_0 k1\_scmfsa\_2)))\Rightarrow(k2\_compos\_0 (u1\_compos\_1 k1\_scmfsa\_2) (k16\_scmfsa\_2 X1 X0) = np\_11))$$