

# t36\_scmfsa\_2 (TMcWhYrdRrzGCjRGtHhghTQn- PjzPoAY4tnk)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_compos\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_scmfsa\_2 : \iota$  be given. Let  $k2\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_7 : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_ami\_2 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k12\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_8 : \iota$  be given. Let  $k1\_ami\_3 : \iota$  be given. Let  $k8\_ami\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_scmfsa\_2 : \iota$  be given. Let  $k2\_scm\_inst : \iota$  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  $k2\_ami\_2 : \iota$  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  $np\_2 : \iota$  be given. Let  $k1\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 (u1\_compos\_1 k1\_scmfsa\_2)) \Rightarrow ((r1\_xxreal\_0 (k2\_compos\_0 (u1\_compos\_1 k1\_scmfsa\_2) X0) np\_8) \Rightarrow (m1\_subset\_1 X0 (u1\_compos\_1 k1\_ami\_3))) \quad (2)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 (u1\_compos\_1 k1\_ami\_3)) \Rightarrow (\neg (k2\_compos\_0 (u1\_compos\_1 k1\_ami\_3) X0 = np\_7) \wedge (\forall X1. (m1\_subset\_1 X1 k5\_numbers) \Rightarrow (\forall X2. ((v1\_ami\_2 X2) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 k1\_ami\_3)))) \Rightarrow (X0 \neq k8\_ami\_3 X1 X2)))) \quad (3)$$

Assume the following.

$$r1\_xxreal\_0 np\_7 np\_8 \quad (4)$$

Assume the following.

$$k2\_scmfsa\_2 = k2\_scm\_inst \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0 X0)\wedge(v1\_compos\_0 X0))\wedge(m1\_subset\_1 X1 X0))\Rightarrow(k2\_compos\_0 X0 X1 = k4\_xtuple\_0 X1) \quad (6)$$

Assume the following.

$$k2\_ami\_2 = k2\_scm\_inst \quad (7)$$

Assume the following.

$$\forall X0.(l1\_compos\_1 X0)\Rightarrow((v1\_compos\_0 (u1\_compos\_1 X0))\wedge((v2\_compos\_0 (u1\_compos\_1 X0))\wedge((v3\_compos\_0 (u1\_compos\_1 X0))\wedge(v5\_compos\_0 (u1\_compos\_1 X0)))))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(l1\_extpro\_1 X1 X0)\Rightarrow((l1\_memstr\_0 X1 X0)\wedge(l1\_compos\_1 X1)) \quad (9)$$

Assume the following.

$$m1\_subset\_1 k2\_scmfsa\_2 (k1\_zfmisc\_1 (u1\_struct\_0 k1\_scmfsa\_2)) \quad (10)$$

Assume the following.

$$(v1\_extpro\_1 k1\_scmfsa\_2 np\_3)\wedge(l1\_extpro\_1 k1\_scmfsa\_2 np\_3) \quad (11)$$

Assume the following.

$$(v1\_extpro\_1 k1\_ami\_3 np\_2)\wedge(l1\_extpro\_1 k1\_ami\_3 np\_2) \quad (12)$$

Assume the following.

$$\forall X0.k4\_xtuple\_0 X0 = k1\_xtuple\_0 (k1\_xtuple\_0 X0) \quad (13)$$

Assume the following.

$$\forall X0.(v1\_ami\_2 X0)\Leftrightarrow(X0 \in k2\_ami\_2) \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers)\Rightarrow(\forall X1.((v1\_ami\_2 X1)\wedge(m1\_subset\_1 X1 (u1\_struct\_0 k1\_scmfsa\_2)))\Rightarrow(\forall X2. \\ (m1\_subset\_1 X2 (u1\_compos\_1 k1\_scmfsa\_2))\Rightarrow((X2 = k12\_scmfsa\_2 X0 X1)\Leftrightarrow(\exists X3.((v1\_ami\_2 X3)\wedge(m1\_subset\_1 X3 (u1\_struct\_0 \\ k1\_ami\_3))))\wedge((X1 = X3)\wedge(X2 = k8\_ami\_3 X0 X3)))))) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0.(v5\_compos\_0 X0)\Rightarrow(\neg v1\_xboole\_0 X0) \quad (16)$$

### Theorem 1

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 (u1\_compos\_1 k1\_scmfsa\_2))\Rightarrow(\neg(k2\_compos\_0 \\ (u1\_compos\_1 k1\_scmfsa\_2) X0 = np\_7)\wedge(\forall X1.(m1\_subset\_1 \\ X1 k5\_numbers)\Rightarrow(\forall X2.((v1\_ami\_2 X2)\wedge(m1\_subset\_1 X2 (u1\_struct\_0 \\ k1\_scmfsa\_2))))\Rightarrow(X0\neq k12\_scmfsa\_2 X1 X2)))) \end{aligned}$$