t62_scmfsa_2 (TMX2ZbpVkZ2Kpc83TyKu2hV1b7gCUPZu1rM)

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Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_ami\_3 : \iota$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v5\_funct\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_scmfsa\_2 : \iota$ be given. Let $np\_\_3 : \iota$ be given. Let $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_ami\_2 : \iota$ be given. Let $k5\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v3\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ 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 $l1\_compos\_1 : \iota \Rightarrow o$ be given. Let $v1\_setfam\_1 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ (u1\_struct\_0\ k1\_ami\_3)) \wedge ((v1\_funct\_1\ X0) \wedge ((v5\_funct\_1\ X0\ (k2\_memstr\_0\ np\_\_2\ k1\_ami\_3)) \wedge (v1\_partfun1\ X0\ (u1\_struct\_0\ k1\_ami\_3)))))) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)) \wedge ((v1\_funct\_1\ X1) \wedge ((v5\_funct\_1\ X1\ (k2\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2)) \wedge (v1\_partfun1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))))) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge ((v4\_relat\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)) \wedge ((v1\_funct\_1\ X2) \wedge ((v5\_funct\_1\ X2\ (k2\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2)) \wedge (v1\_partfun1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))))) \Rightarrow ((X1 = k1\_funct\_4\ X2\ X0) \Rightarrow (k1\_funct\_1\ X1\ (k4\_struct\_0\ k1\_scmfsa\_2) = k1\_funct\_1\ X0\ (k4\_struct\_0\ k1\_ami\_3)))))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ (u1\_struct\_0\ k1\_ami\_3))\wedge((v1\_funct\_1\ X0)\wedge((v5\_funct\_1\ X0\ (k2\_memstr\_0\ np\_\_2\ k1\_ami\_3))\wedge(v1\_partfun1\ X0\ (u1\_struct\_0\ k1\_ami\_3))))))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))\wedge((v1\_funct\_1\ X1)\wedge((v5\_funct\_1\ X1\ (k2\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2))\wedge(v1\_partfun1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))))))\Rightarrow((X0 = k5\_relat\_1\ X1\ k1\_ami\_2)\Rightarrow(X1 = k1\_funct\_4\ X1\ X0))) \tag{2}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_3)\wedge(m2\_subset\_1\ np\_\_3\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_3\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_3\ k1\_numbers)) \tag{3}$$

Assume the following.

$$\neg v1\_xboole\_0\ np\_\_3 \tag{4}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_2)\wedge(m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_2\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{5}$$

Assume the following.

$$\neg v1\_xboole\_0\ np\_\_2 \tag{6}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{7}$$

Assume the following.

$$(v3\_memstr\_0\ k1\_scmfsa\_2\ np\_\_3)\wedge(v1\_extpro\_1\ k1\_scmfsa\_2\ np\_\_3) \tag{8}$$

Assume the following.

$$(v3\_memstr\_0\ k1\_ami\_3\ np\_\_2)\wedge(v1\_extpro\_1\ k1\_ami\_3\ np\_\_2) \tag{9}$$

Assume the following.

$$(v2\_memstr\_0\ k1\_ami\_3\ np\_\_2)\wedge(v1\_extpro\_1\ k1\_ami\_3\ np\_\_2) \tag{10}$$

Assume the following.

$$(\neg v2\_struct\_0\ k1\_scmfsa\_2)\wedge((v2\_memstr\_0\ k1\_scmfsa\_2\ np\_\_3)\wedge(v1\_extpro\_1\ k1\_scmfsa\_2\ np\_\_3)) \tag{11}$$

Assume the following.

$$(\neg v2\_struct\_0\ k1\_ami\_3)\wedge(v1\_extpro\_1\ k1\_ami\_3\ np\_\_2) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.(l1\_extpro\_1\ X1\ X0)\Rightarrow((l1\_memstr\_0\ X1\ X0)\wedge (l1\_compos\_1\ X1)) \tag{13}$$

Assume the following.

$$(v1\_extpro\_1\ k1\_scmfsa\_2\ np\_\_3)\wedge(l1\_extpro\_1\ k1\_scmfsa\_2\ np\_\_3) \tag{14}$$

Assume the following.

$$(v1\_extpro\_1\ k1\_ami\_3\ np\_\_2)\wedge(l1\_extpro\_1\ k1\_ami\_3\ np\_\_2) \tag{15}$$

Assume the following.

$$\forall X0.(\neg v1\_setfam\_1\ X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge ((v2\_memstr\_0\ X1\ X0)\wedge((v3\_memstr\_0\ X1\ X0)\wedge(l1\_memstr\_0\ X1\ X0))))\Rightarrow (\forall X2.((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ (u1\_struct\_0\ X1))\wedge ((v1\_funct\_1\ X2)\wedge(v5\_funct\_1\ X2\ (k2\_memstr\_0\ X0\ X1)))))\Rightarrow(k5\_memstr\_0\ X0\ X1\ X2 = k1\_funct\_1\ X2\ (k4\_struct\_0\ X1)))) \tag{16}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{17}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v7\_ordinal1\ X0))\Rightarrow((\neg v1\_xboole\_0\ X0)\wedge((v7\_ordinal1\ X0)\wedge(\neg v1\_setfam\_1\ X0))) \tag{18}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ (u1\_struct\_0\ k1\_ami\_3))\wedge ((v1\_funct\_1\ X0)\wedge((v5\_funct\_1\ X0\ (k2\_memstr\_0\ np\_\_2\ k1\_ami\_3))\wedge (v1\_partfun1\ X0\ (u1\_struct\_0\ k1\_ami\_3))))))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))\wedge((v1\_funct\_1\ X1)\wedge((v5\_funct\_1\ X1\ (k2\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2))\wedge(v1\_partfun1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))))))\Rightarrow((X0 = k5\_relat\_1\ X1\ k1\_ami\_2)\Rightarrow (k5\_memstr\_0\ np\_\_3\ k1\_scmfsa\_2\ X1 = k5\_memstr\_0\ np\_\_2\ k1\_ami\_3\ X0)))$$