t7_scmring3 (TMU295xoLTdAukTHcyzEuw7MrgAKYJpDkJY)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v4\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v5\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $l6\_algstr\_0 : \iota \Rightarrow o$ 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 $k1\_scmring2 : \iota \Rightarrow \iota$ be given. Let $k2\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_compos\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_scmring2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_3 : \iota$ 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 $k1\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $np\_\_2 : \iota$ be given. Let $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.k1\_xtuple\_0\ (k4\_tarski\ X0\ X1) = X0 \tag{2}$$

Assume the following.

$$\forall X0.(l1\_compos\_1\ X0) \Rightarrow ((v1\_compos\_0\ (u1\_compos\_1\ X0)) \wedge ((v2\_compos\_0\ (u1\_compos\_1\ X0)) \wedge ((v3\_compos\_0\ (u1\_compos\_1\ X0)) \wedge (v5\_compos\_0\ (u1\_compos\_1\ X0))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(l1\_extpro\_1\ X1\ X0) \Rightarrow ((l1\_memstr\_0\ X1\ X0) \wedge (l1\_compos\_1\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0))))))))))\wedge(((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k1\_scmring2\ X0))))\wedge((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k1\_scmring2\ X0))))))\Rightarrow(m1\_subset\_1\ (k5\_scmring2\ X0\ X1\ X2)\ (u1\_compos\_1\ (k1\_scmring2\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0))))))))\Rightarrow((v1\_extpro\_1\ (k1\_scmring2\ X0)\ np\_\_2)\wedge(l1\_extpro\_1\ (k1\_scmring2\ X0)\ np\_\_2)) \tag{6}$$

Assume the following.

$$\forall X0.k4\_xtuple\_0\ X0 = k1\_xtuple\_0\ (k1\_xtuple\_0\ X0) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0))))))))\Rightarrow(\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k1\_scmring2\ X0))))\Rightarrow(\forall X2.((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k1\_scmring2\ X0))))\Rightarrow(k5\_scmring2\ X0\ X1\ X2 = k3\_xtuple\_0\ np\_\_3\ k1\_xboole\_0\ (k10\_finseq\_1\ X1\ X2)))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k3\_xtuple\_0\ X0\ X1\ X2 = k4\_tarski\ (k4\_tarski\ X0\ X1)\ X2 \tag{9}$$

Assume the following.

$$\forall X0.(v5\_compos\_0\ X0)\Rightarrow(\neg v1\_xboole\_0\ X0) \tag{10}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0))))))))\Rightarrow(\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k1\_scmring2\ X0))))\Rightarrow(\forall X2.((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k1\_scmring2\ X0))))\Rightarrow(k2\_compos\_0\ (u1\_compos\_1\ (k1\_scmring2\ X0))\ (k5\_scmring2\ X0\ X1\ X2) = np\_\_3)))$$