t3_scmring2 (TMctwWrcSy3zB8H88X7krcT7RaY4WodTGi6)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ 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 $k9\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $np\_\_3 : \iota$ be given. Let $np\_\_4 : \iota$ 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. Let $k1\_scmringi : \iota \Rightarrow \iota$ be given. Let $k2\_scm\_inst : \iota$ be given. Let $k2\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_ami\_3 : \iota$ be given. Let $k2\_ami\_2 : \iota$ 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 $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (\forall X1.\ \forall X2.(m1\_subset\_1\ X2\ k2\_scm\_inst) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k2\_scm\_inst) \Rightarrow ((X1 \in k2\_enumset1\ np\_\_1\ np\_\_2\ np\_\_3\ np\_\_4) \Rightarrow (k3\_xtuple\_0\ X1\ k1\_xboole\_0\ (k2\_finseq\_4\ k2\_scm\_inst\ X2\ X3) \in k1\_scmringi\ X0)))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ X1)) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{3}$$

Assume the following.

$$k8\_struct\_0\ k1\_ami\_3 = k2\_ami\_2 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v3\_group\_1\ X1)\wedge((v4\_vectsp\_1\ X1)\wedge((v5\_vectsp\_1\ X1)\wedge(l6\_algstr\_0\ X1)))))))))\Rightarrow(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ (k1\_scmring2\ X1))))\Leftrightarrow(X0 \in k8\_struct\_0\ k1\_ami\_3)) \tag{5}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_4)\wedge(m2\_subset\_1\ np\_\_4\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_4\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_4\ k1\_numbers)) \tag{6}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_3)\wedge(m2\_subset\_1\ np\_\_3\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_3\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_3\ k1\_numbers)) \tag{7}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_2)\wedge(m2\_subset\_1\ np\_\_2\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_2\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_2\ k1\_numbers)) \tag{8}$$

Assume the following.

$$((v2\_xxreal\_0\ np\_\_1)\wedge(m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers))\wedge((m1\_subset\_1\ np\_\_1\ k5\_numbers)\wedge(m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ X0\ X0 \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1\_xboole\_0\ X0)\wedge((m1\_subset\_1\ X1\ X0)\wedge((m1\_subset\_1\ X2\ X0)\wedge((m1\_subset\_1\ X3\ X0)\wedge(m1\_subset\_1\ X4\ X0)))))\Rightarrow(k9\_domain\_1\ X0\ X1\ X2\ X3\ X4 = k2\_enumset1\ X1\ X2\ X3\ X4) \tag{11}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0)\wedge((m1\_subset\_1\ X1\ X0)\wedge(m1\_subset\_1\ X2\ X0)))\Rightarrow(k2\_finseq\_4\ X0\ X1\ X2 = k10\_finseq\_1\ X1\ X2) \tag{13}$$

Assume the following.

$$k2\_ami\_2 = k2\_scm\_inst \tag{14}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1) \wedge (v3\_ordinal1\ k4\_ordinal1) \tag{15}$$

Assume the following.

$$\neg v1\_xboole\_0\ k2\_scm\_inst \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k3\_xtuple\_0\ X0\ X1\ X2 = k4\_tarski\ (k4\_tarski\ X0\ X1)\ X2 \tag{17}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (\forall X1.\ \forall X2.((\neg v2\_struct\_0\ X2) \wedge ((v13\_algstr\_0\ X2) \wedge ((v2\_rlvect\_1\ X2) \wedge ((v3\_rlvect\_1\ X2) \wedge ((v4\_rlvect\_1\ X2) \wedge ((v3\_group\_1\ X2) \wedge ((v4\_vectsp\_1\ X2) \wedge ((v5\_vectsp\_1\ X2) \wedge (l6\_algstr\_0\ X2))))))))) \Rightarrow (\forall X3.((v1\_ami\_2\ X3) \wedge (m1\_subset\_1\ X3\ (u1\_struct\_0\ (k1\_scmring2\ X2)))) \Rightarrow (\forall X4.((v1\_ami\_2\ X4) \wedge (m1\_subset\_1\ X4\ (u1\_struct\_0\ (k1\_scmring2\ X2)))) \Rightarrow ((X1 \in k9\_domain\_1\ k5\_numbers\ np\_\_1\ np\_\_2\ np\_\_3\ np\_\_4) \Rightarrow (k3\_xtuple\_0\ X1\ k1\_xboole\_0\ (k10\_finseq\_1\ X3\ X4) \in k1\_scmringi\ X0)))))$$