l113_scmfsa_2 (TMKFkuCWBnpRWvtpHQp-PVvyX2WavS88Gk97)

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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 $v2\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_3 : \iota$ be given. Let $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_ami\_2 : \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k6\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k11\_scmfsa\_2 : \iota \Rightarrow \iota$ be given. Let $k12\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_scmfsa\_2 : \iota \Rightarrow o$ be given. Let $k14\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given.

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmfsa\_2))\Leftrightarrow(\neg(X0\neq k3\_xtuple\_0\ k6\_numbers\ k1\_xboole\_0\ k1\_xboole\_0)\wedge((\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X2.((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(X0\neq k6\_scmfsa\_2\ X1\ X2)))\wedge((\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X2.((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(X0\neq k7\_scmfsa\_2\ X1\ X2)))\wedge((\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X2.((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(X0\neq k8\_scmfsa\_2\ X1\ X2)))\wedge((\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X2.((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(X0\neq k9\_scmfsa\_2\ X1\ X2)))\wedge((\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X2.((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(X0\neq k10\_scmfsa\_2\ X1\ X2)))\wedge((\forall X1.(m1\_subset\_1\ X1\ k5\_numbers)\Rightarrow(X0\neq k11\_scmfsa\_2\ X1))\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)))\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 k13\_scmfsa\_2\ X1\ X2)))\wedge((\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X2.((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X3.(m1\_scmfsa\_2\ X3)\Rightarrow(X0\neq k14\_scmfsa\_2\ X2\ X1\ X3))))\wedge((\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X2.((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X3.(m1\_scmfsa\_2\ X3)\Rightarrow(X0\neq k15\_scmfsa\_2\ X2\ X1\ X3))))\wedge((\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X2.(m1\_scmfsa\_2\ X2)\Rightarrow(X0\neq k16\_scmfsa\_2\ X1\ X2)))\wedge(\forall X1.((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2)))\Rightarrow(\forall X2.(m1\_scmfsa\_2\ X2)\Rightarrow(X0\neq k17\_scmfsa\_2\ X1\ X2)))))))))))))) \tag{1}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))))\Rightarrow(\neg v2\_extpro\_1\ (k9\_scmfsa\_2\ X0\ X1)\ np\_3\ k1\_scmfsa\_2) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))))\Rightarrow(\neg v2\_extpro\_1\ (k8\_scmfsa\_2\ X0\ X1)\ np\_\_3\ k1\_scmfsa\_2) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))))\Rightarrow(\neg v2\_extpro\_1\ (k7\_scmfsa\_2\ X0\ X1)\ np\_\_3\ k1\_scmfsa\_2) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))))\Rightarrow(\neg v2\_extpro\_1\ (k6\_scmfsa\_2\ X0\ X1)\ np\_\_3\ k1\_scmfsa\_2) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge(m1\_scmfsa\_2\ X1))\Rightarrow(\neg v2\_extpro\_1\ (k17\_scmfsa\_2\ X0\ X1)\ np\_\_3\ k1\_scmfsa\_2) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge(m1\_scmfsa\_2\ X1))\Rightarrow(\neg v2\_extpro\_1\ (k16\_scmfsa\_2\ X0\ X1)\ np\_\_3\ k1\_scmfsa\_2) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge((m1\_scmfsa\_2\ X1)\wedge((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))))\Rightarrow(\neg v2\_extpro\_1\ (k15\_scmfsa\_2\ X0\ X2\ X1)\ np\_\_3\ k1\_scmfsa\_2) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge((m1\_scmfsa\_2\ X1)\wedge((v1\_ami\_2\ X2)\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2)))))\Rightarrow(\neg v2\_extpro\_1\ (k14\_scmfsa\_2\ X0\ X2\ X1)\ np\_\_3\ k1\_scmfsa\_2) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge(m1\_subset\_1\ X1\ k5\_numbers))\Rightarrow(\neg v2\_extpro\_1\ (k13\_scmfsa\_2\ X1\ X0)\ np\_\_3\ k1\_scmfsa\_2) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge(m1\_subset\_1\ X1\ k5\_numbers))\Rightarrow(\neg v2\_extpro\_1\ (k12\_scmfsa\_2\ X1\ X0)\ np\_\_3\ k1\_scmfsa\_2) \tag{12}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\neg v2\_extpro\_1\ (k11\_scmfsa\_2\ X0)\ np\_\_3\ k1\_scmfsa\_2) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_ami\_2\ X0)\wedge(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)))\wedge((v1\_ami\_2\ X1)\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))))\Rightarrow(\neg v2\_extpro\_1\ (k10\_scmfsa\_2\ X0\ X1)\ np\_\_3\ k1\_scmfsa\_2) \tag{14}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmfsa\_2))\Rightarrow((v2\_extpro\_1\ X0\ np\_\_3\ k1\_scmfsa\_2)\Rightarrow(X0 = k3\_xtuple\_0\ k6\_numbers\ k1\_xboole\_0\ k1\_xboole\_0))$$