t23_scmfsa10 (TMLd2fh7UrDC1tJdAkoz6zXxEtTRXamLCST)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_compos\_0 : \iota \Rightarrow \iota$ be given. Let $u1\_compos\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_scmfsa\_2 : \iota$ be given. Let $np\_\_6 : \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k10\_card\_3 : \iota \Rightarrow \iota$ be given. Let $k3\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k2\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11\_scmfsa\_2 : \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v4\_funct\_1 : \iota \Rightarrow o$ be given. Let $v2\_card\_3 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k9\_card\_3 : \iota \Rightarrow \iota$ be given. Let $k2\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_compos\_0 : \iota \Rightarrow o$ be given. Let $v2\_compos\_0 : \iota \Rightarrow o$ be given. Let $l1\_compos\_1 : \iota \Rightarrow o$ 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 $k9\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_3 : \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k7\_ami\_3 : \iota \Rightarrow \iota$ be given. Let $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k5\_card\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$(k2\_finseq\_1\ np\_\_1 = k1\_tarski\ np\_\_1) \wedge (k2\_finseq\_1\ np\_\_2 = k2\_tarski\ np\_\_1\ np\_\_2) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ (k11\_scmfsa\_2\ X0) = np\_\_6) \tag{2}$$

Assume the following.

$$m1\_subset\_1\ k1\_xboole\_0\ k4\_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0.((v4\_funct\_1\ X0)\wedge(v2\_card\_3\ X0))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))\Rightarrow((X1\in X0)\Rightarrow(k9\_xtuple\_0\ X1 = k9\_card\_3\ X0))) \tag{4}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.k2\_xtuple\_0\ (k4\_tarski\ X0\ X1) = X1 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.k1\_xtuple\_0\ (k4\_tarski\ X0\ X1) = X0 \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0\ X0)\wedge((v1\_compos\_0\ X0)\wedge(v2\_compos\_0\ X0)))\wedge(m1\_subset\_1\ X1\ (k1\_compos\_0\ X0)))\Rightarrow(v2\_card\_3\ (k3\_compos\_0\ X0\ X1)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0\ X0)\wedge(v1\_compos\_0\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_compos\_0\ X0)))\Rightarrow((\neg v1\_xboole\_0\ (k3\_compos\_0\ X0\ X1))\wedge(v4\_funct\_1\ (k3\_compos\_0\ X0\ X1))) \tag{9}$$

Assume the following.

$$\forall X0.(l1\_compos\_1\ X0)\Rightarrow((v1\_compos\_0\ (u1\_compos\_1\ X0))\wedge((v2\_compos\_0\ (u1\_compos\_1\ X0))\wedge((v3\_compos\_0\ (u1\_compos\_1\ X0))\wedge(v5\_compos\_0\ (u1\_compos\_1\ X0))))) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(l1\_extpro\_1\ X1\ X0)\Rightarrow((l1\_memstr\_0\ X1\ X0)\wedge(l1\_compos\_1\ X1)) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ (k9\_finseq\_1\ X0))\wedge(v1\_funct\_1\ (k9\_finseq\_1\ X0)) \tag{12}$$

Assume the following.

$$(v1\_extpro\_1\ k1\_scmfsa\_2\ np\_\_3)\wedge(l1\_extpro\_1\ k1\_scmfsa\_2\ np\_\_3) \tag{13}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(m1\_subset\_1\ (k11\_scmfsa\_2\ X0)\ (u1\_compos\_1\ k1\_scmfsa\_2)) \tag{14}$$

Assume the following.

$$\forall X0.(v4\_funct\_1\ X0)\Rightarrow((v1\_relat\_1\ (k10\_card\_3\ X0))\wedge(v1\_funct\_1\ (k10\_card\_3\ X0))) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))\Rightarrow((X1 = k9\_finseq\_1\ X0)\Leftrightarrow((k9\_xtuple\_0\ X1 = k2\_finseq\_1\ np\_\_1)\wedge(k1\_funct\_1\ X1\ np\_\_1 = X0))) \tag{16}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k7\_ami\_3\ X0 = k3\_xtuple\_0\ np\_\_6\ (k9\_finseq\_1\ X0)\ k1\_xboole\_0) \tag{17}$$

Assume the following.

$$\forall X0.k5\_xtuple\_0\ X0 = k2\_xtuple\_0\ (k1\_xtuple\_0\ X0) \tag{18}$$

Assume the following.

$$\forall X0.\forall X1.k4\_tarski\ X0\ X1 = k2\_tarski\ (k2\_tarski\ X0\ X1)\ (k1\_tarski\ X0) \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k3\_xtuple\_0\ X0\ X1\ X2 = k4\_tarski\ (k4\_tarski\ X0\ X1)\ X2 \tag{20}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0)\wedge(v1\_compos\_0\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_compos\_0\ X0))\Rightarrow(k3\_compos\_0\ X0\ X1 = ReplSep\ (toset\ (\lambda X2 : \iota.m1\_subset\_1\ X2\ X0))\ (\lambda X2 : \iota.k2\_compos\_0\ X0\ X2 = X1)\ (\lambda X2 : \iota.k5\_xtuple\_0\ X2))) \tag{21}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(k11\_scmfsa\_2\ X0 = k7\_ami\_3\ X0) \tag{22}$$

Assume the following.

$$\forall X0.(v4\_funct\_1\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))\Rightarrow((X1 = k10\_card\_3\ X0)\Leftrightarrow((k9\_xtuple\_0\ X1 = k9\_card\_3\ X0)\wedge(\forall X2.(X2 \in k9\_xtuple\_0\ X1)\Rightarrow(k1\_funct\_1\ X1\ X2 = k5\_card\_3\ X2\ X0))))) \tag{23}$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski\ X0\ X1 = k2\_tarski\ X1\ X0 \tag{24}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \tag{25}$$

Assume the following.

$$\forall X0.(v5\_compos\_0\ X0) \Rightarrow (\neg v1\_xboole\_0\ X0) \tag{26}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2))) \Rightarrow ((X0 = np\_\_6) \Rightarrow (k9\_xtuple\_0\ (k10\_card\_3\ (k3\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ X0)) = k1\_tarski\ np\_\_1))$$