t21_scmfsa_1 (TMK8okUfuU5i9WVcfgcFLL6Zxwav45vczxb)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_card\_3 : \iota \Rightarrow \iota$ be given. Let $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_scmfsa\_1 : \iota$ be given. Let $k5\_scmfsa\_1 : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_scmfsa\_1 : \iota$ be given. Let $k3\_scmfsa\_1 : \iota$ be given. Let $k9\_scmfsa\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_scmfsa\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k7\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k1\_scmfsa\_i : \iota$ be given. Let $k2\_scmfsa\_1 : \iota$ be given. Let $k2\_scm\_inst : \iota$ be given. Let $k1\_ami\_2 : \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_funct\_1 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_3 : \iota$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(\neg(\neg r1\_xboole\_0\ X0\ X1)\wedge(\forall X2.\neg(X2 \in X0)\wedge(X2 \in X1)))\wedge(\neg(\exists X2.(X2 \in X0)\wedge(X2 \in X1))\wedge(r1\_xboole\_0\ X0\ X1)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1)\Rightarrow((v1\_xboole\_0\ X1)\vee(X0 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(k9\_xtuple\_0\ (k2\_funcop\_1\ X0\ X1) = X0)\wedge(r1\_tarski\ (k10\_xtuple\_0\ (k2\_funcop\_1\ X0\ X1))\ (k1\_tarski\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge(v1\_funct\_1\ X2))\Rightarrow((\neg X0\in k9\_xtuple\_0\ X1)\Rightarrow(k1\_funct\_1\ (k1\_funct\_4\ X2\ X1)\ X0 = k1\_funct\_1\ X2\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge(\neg v1\_xboole\_0\ X1))\Rightarrow((r1\_subset\_1\ X0\ X1)\Leftrightarrow(r1\_xboole\_0\ X0\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Leftrightarrow(m1\_subset\_1\ X2\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ (k4\_card\_3\ (k3\_relat\_1\ k4\_scmfsa\_1\ k5\_scmfsa\_1)))\wedge(m1\_subset\_1\ X1\ k3\_scmfsa\_1))\Rightarrow(k9\_scmfsa\_1\ X0\ X1 = k1\_funct\_1\ X0\ X1) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.k7\_funcop\_1\ X0\ X1 = k2\_funcop\_1\ X0\ X1 \tag{8}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{9}$$

Assume the following.

$$k3\_scmfsa\_1 = k1\_scmfsa\_i \tag{10}$$

Assume the following.

$$k2\_scmfsa\_1 = k2\_scm\_inst \tag{11}$$

Assume the following.

$$r1\_subset\_1\ k3\_scmfsa\_1\ k1\_ami\_2 \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1\ (k2\_zfmisc\_1\ X0\ X1) \tag{13}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(v4\_funct\_1\ (k4\_card\_3\ X0)) \tag{14}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_scmfsa\_i \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\wedge((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1)))\Rightarrow((v1\_relat\_1\ (k3\_relat\_1\ X0\ X1))\wedge(v1\_funct\_1\ (k3\_relat\_1\ X0\ X1))) \tag{16}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_scmfsa\_1 \tag{17}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_relat\_1\ (k2\_funcop\_1\ X0\ X1))\wedge(v1\_funct\_1\ (k2\_funcop\_1\ X0\ X1)) \tag{18}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_ami\_2 \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ (k4\_card\_3\ (k3\_relat\_1\ k4\_scmfsa\_1\ k5\_scmfsa\_1)))\wedge(v7\_ordinal1\ X1))\Rightarrow(m1\_subset\_1\ (k6\_scmfsa\_1\ X0\ X1)\ (k4\_card\_3\ (k3\_relat\_1\ k4\_scmfsa\_1\ k5\_scmfsa\_1))) \tag{20}$$

Assume the following.

$$(v1\_relat\_1\ k5\_scmfsa\_1)\wedge((v4\_relat\_1\ k5\_scmfsa\_1\ np\_\_3)\wedge((v1\_funct\_1\ k5\_scmfsa\_1)\wedge(v1\_partfun1\ k5\_scmfsa\_1\ np\_\_3))) \tag{21}$$

Assume the following.

$$(v1\_funct\_1\ k4\_scmfsa\_1)\wedge((v1\_funct\_2\ k4\_scmfsa\_1\ k1\_scmfsa\_1\ np\_\_3)\wedge(m1\_subset\_1\ k4\_scmfsa\_1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_scmfsa\_1\ np\_\_3)))) \tag{22}$$

Assume the following.

$$m1\_subset\_1\ k3\_scmfsa\_1\ (k1\_zfmisc\_1\ k1\_scmfsa\_1) \tag{23}$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1\ (k3\_relat\_1\ X0\ X1) \tag{24}$$

Assume the following.

$$\forall X0.\forall X1.k16\_funcop\_1\ X0\ X1 = k7\_funcop\_1\ (k1\_tarski\ X0)\ X1 \tag{25}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k4\_card\_3\ (k3\_relat\_1\ k4\_scmfsa\_1\ k5\_scmfsa\_1)))\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(k6\_scmfsa\_1\ X0\ X1 = k1\_funct\_4\ X0\ (k16\_funcop\_1\ k5\_numbers\ X1))) \tag{26}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_xboole\_0\ X0\ X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 \in X0)\vee(X3 \in X1))) \tag{27}$$

Assume the following.

$$\forall X0.\forall X1.k2\_funcop\_1\ X0\ X1 = k2\_zfmisc\_1\ X0\ (k1\_tarski\ X1) \tag{28}$$

Assume the following.

$$k1\_ami\_2 = k2\_xboole\_0\ (k1\_tarski\ k5\_numbers)\ k2\_scm\_inst \tag{29}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{30}$$

Assume the following.

$$\forall X0.(v4\_funct\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow((v1\_relat\_1\ X1)\wedge(v1\_funct\_1\ X1))) \tag{31}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_relat\_1\ X1)) \tag{32}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (k4\_card\_3\ (k3\_relat\_1\ k4\_scmfsa\_1\ k5\_scmfsa\_1)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k5\_numbers)\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ k1\_scmfsa\_1\ k3\_scmfsa\_1)\Rightarrow(k9\_scmfsa\_1\ (k6\_scmfsa\_1\ X0\ X1)\ X2 = k9\_scmfsa\_1\ X0\ X2)))$$