t33_sf_mastr (TMPqcWcZKdGGsrfx6iFswb3ysAR67EzoC6w)

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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 $k1\_scmfsa\_2 : \iota$ be given. Let $m1\_scmfsa\_2 : \iota \Rightarrow o$ be given. Let $u1\_compos\_1 : \iota \Rightarrow \iota$ 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 $k3\_sf\_mastr : \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_10 : \iota$ be given. Let $np\_\_9 : \iota$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $v4\_finsub\_1 : \iota \Rightarrow o$ be given. Let $k5\_finsub\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_scmfsa\_1 : \iota$ be given. Let $k3\_scmfsa\_2 : \iota$ be given. Let $np\_\_11 : \iota$ be given. Let $np\_\_12 : \iota$ be given. Let $k16\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ (k1\_tarski\ X0)\ X1) \Leftrightarrow (X0 \in X1) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_scmfsa\_2\ X0) \Rightarrow (\forall X1.((v1\_ami\_2\ X1) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (\forall X2.((v1\_ami\_2\ X2) \wedge (m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ (k15\_scmfsa\_2\ X2\ X1\ X0) = np\_\_10))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_scmfsa\_2\ X0) \Rightarrow (\forall X1.((v1\_ami\_2\ X1) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (\forall X2.((v1\_ami\_2\ X2) \wedge (m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ (k14\_scmfsa\_2\ X1\ X2\ X0) = np\_\_9))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.v1\_finset\_1\ (k1\_tarski\ X0) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_scmfsa\_2\ X0) \Rightarrow (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)) \tag{6}$$

Assume the following.

$$\forall X0.v4\_finsub\_1\ (k5\_finsub\_1\ X0) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2)) \Rightarrow ((m1\_scmfsa\_2\ X0) \Leftrightarrow (X0 \in k3\_scmfsa\_1)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(v4\_finsub\_1\ X1) \Rightarrow ((X1 = k5\_finsub\_1\ X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow ((r1\_tarski\ X2\ X0) \wedge (v1\_finset\_1\ X2)))) \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_compos\_1\ k1\_scmfsa\_2)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k5\_finsub\_1\ k3\_scmfsa\_2)) \Rightarrow ((((k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ X0 = np\_\_9) \vee (k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ X0 = np\_\_10)) \Rightarrow ((X1 = k3\_sf\_mastr\ X0) \Leftrightarrow (\exists X2.((v1\_ami\_2\ X2) \wedge (m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2))) \wedge (\exists X3.((v1\_ami\_2\ X3) \wedge (m1\_subset\_1\ X3\ (u1\_struct\_0\ k1\_scmfsa\_2))) \wedge (\exists X4.(m1\_scmfsa\_2\ X4) \wedge (((X0 = k14\_scmfsa\_2\ X3\ X2\ X4) \vee (X0 = k15\_scmfsa\_2\ X3\ X2\ X4)) \wedge (X1 = k1\_tarski\ X4))))))) \wedge ((((k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ X0 = np\_\_11) \vee (k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ X0 = np\_\_12)) \Rightarrow ((X1 = k3\_sf\_mastr\ X0) \Leftrightarrow (\exists X2.((v1\_ami\_2\ X2) \wedge (m1\_subset\_1\ X2\ (u1\_struct\_0\ k1\_scmfsa\_2))) \wedge (\exists X3.(m1\_scmfsa\_2\ X3) \wedge (((X0 = k16\_scmfsa\_2\ X2\ X3) \vee (X0 = k17\_scmfsa\_2\ X2\ X3)) \wedge (X1 = k1\_tarski\ X3)))))) \wedge (\neg(k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ X0 \neq np\_\_9) \wedge ((k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ X0 \neq np\_\_10) \wedge ((k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ X0 \neq np\_\_11) \wedge ((k2\_compos\_0\ (u1\_compos\_1\ k1\_scmfsa\_2)\ X0 \neq np\_\_12) \wedge (\neg(X1 = k3\_sf\_mastr\ X0) \Leftrightarrow (X1 = k1\_xboole\_0))))))))) \tag{10}$$

Assume the following.

$$k3\_scmfsa\_2 = k3\_scmfsa\_1 \tag{11}$$

Theorem 1

$$\forall X0.((v1\_ami\_2\ X0) \wedge (m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (\forall X1.((v1\_ami\_2\ X1) \wedge (m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_scmfsa\_2))) \Rightarrow (\forall X2.(m1\_scmfsa\_2\ X2) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_compos\_1\ k1\_scmfsa\_2)) \Rightarrow (((X3 = k14\_scmfsa\_2\ X0\ X1\ X2) \vee (X3 = k15\_scmfsa\_2\ X0\ X1\ X2)) \Rightarrow (k3\_sf\_mastr\ X3 = k1\_tarski\ X2)))))$$