

t9\_scmfsa\_i  
(TMNXZozXzigVdTJSavTThPThfFwaL86d3zY)

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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  $k2\_scmfsa\_i : \iota$  be given. Let  $np\_11 : \iota$  be given. Let  $np\_12 : \iota$  be given. Let  $k3\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k2\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_compos\_0 : \iota \Rightarrow o$  be given. Let  $v4\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_scm\_inst : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k7\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_13 : \iota$  be given. Let  $k2\_scm\_inst : \iota$  be given. Let  $k1\_scmfsa\_i : \iota$  be given. Let  $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k11\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_9 : \iota$  be given. Let  $np\_10 : \iota$  be given. Let  $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\neg (X0 \neq k1\_tarski k1\_xboole\_0) \wedge \\ ((k1\_xboole\_0 \in X0) \wedge (\forall X1. \neg (X1 \in X0) \wedge (X1 \neq k1\_xboole\_0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (m1\_subset\_1 X0 k2\_scmfsa\_i) \Rightarrow (((k2\_compos\_0 k2\_scmfsa\_i \\ X0 = np\_11) \vee (k2\_compos\_0 k2\_scmfsa\_i X0 = np\_12)) \Rightarrow (k5\_xtuple\_0 \\ X0 = k1\_xboole\_0)) \end{aligned} \quad (2)$$

Assume the following.

$$(\neg v1\_xboole\_0 k2\_scmfsa\_i) \wedge (v1\_compos\_0 k2\_scmfsa\_i) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v1\_xboole\_0 X0) \wedge (v1\_compos\_0 X0)) \wedge \\ (m1\_subset\_1 X1 (k1\_compos\_0 X0))) \Rightarrow ((\neg v1\_xboole\_0 (k3\_compos\_0 \\ X0 X1)) \wedge (v4\_funct\_1 (k3\_compos\_0 X0 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\neg v1\_xboole\_0 k2\_scmfsa\_i \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1\_xboole\_0 X0) \wedge (v1\_compos\_0 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_compos\_0 X0)) \Rightarrow (k3\_compos\_0 X0 X1 = ReplSep \\ & (toset (\lambda X2 : \iota.m1\_subset\_1 X2 X0) (\lambda X2 : \iota.k2\_compos\_0 \\ & X0 X2 = X1) (\lambda X2 : \iota.k5\_xtuple\_0 X2))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & k2\_scmf\_sa\_i = k2\_xboole\_0 (k2\_xboole\_0 k3\_scm\_inst (ReplSep4 \\ & (toset (\lambda X0 : \iota.m2\_subset\_1 X0 k4\_ordinal1 (k7\_card\_1 np\_13))) \\ & (\lambda X0 : \iota.toset (\lambda X1 : \iota.m1\_subset\_1 X1 k2\_scm\_inst)) \\ & (\lambda X0 : \iota.\lambda X1 : \iota.toset (\lambda X2 : \iota.m1\_subset\_1 X2 k2\_scm\_inst)) \\ & (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota.m1\_subset\_1 \\ & X3 k1\_scmf\_sa\_i)) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \\ & \iota.X0 \in k2\_tarski np\_9 np\_10) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \\ & \iota.\lambda X3 : \iota.k3\_xtuple\_0 X0 k1\_xboole\_0 (k11\_finseq\_1 X1 X3 \\ & X2)))) (ReplSep3 (toset (\lambda X0 : \iota.m2\_subset\_1 X0 k4\_ordinal1 \\ & (k7\_card\_1 np\_13))) (\lambda X0 : \iota.toset (\lambda X1 : \iota.m1\_subset\_1 \\ & X1 k2\_scm\_inst)) (\lambda X0 : \iota.\lambda X1 : \iota.toset (\lambda X2 : \iota. \\ & m1\_subset\_1 X2 k1\_scmf\_sa\_i)) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \\ & \iota.X0 \in k2\_tarski np\_11 np\_12) (\lambda X0 : \iota.\lambda X1 : \iota.\lambda X2 : \\ & \iota.k3\_xtuple\_0 X0 k1\_xboole\_0 (k10\_finseq\_1 X1 X2))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (8)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_compos\_0 k2\_scmf\_sa\_i)) \Rightarrow (((X0 = \\ & np\_11) \vee (X0 = np\_12)) \Rightarrow (k3\_compos\_0 k2\_scmf\_sa\_i X0 = k1\_tarski \\ & k1\_xboole\_0)) \end{aligned}$$