

l19\_scmfsa\_i (TM-  
SKx19x6GVYTPpT91dK6xFWxLUR2Pd3GUJ)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_scmfsa\_i : \iota$  be given. Let  $k2\_compos\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_11 : \iota$  be given. Let  $np\_12 : \iota$  be given. Let  $k5\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k3\_scm\_inst : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $np\_4 : \iota$  be given. Let  $np\_5 : \iota$  be given. Let  $np\_6 : \iota$  be given. Let  $np\_7 : \iota$  be given. Let  $np\_8 : \iota$  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.

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1\_subset\_1 X0 k2\_scmfsa\_i) \Rightarrow (\neg(\neg(X0 \in k3\_scm\_inst) \wedge \\
& (\neg(k2\_compos\_0 k2\_scmfsa\_i X0 \neq k6\_numbers) \wedge ((k2\_compos\_0 k2\_scmfsa\_i \\
& X0 \neq np\_1) \wedge ((k2\_compos\_0 k2\_scmfsa\_i X0 \neq np\_2) \wedge ((k2\_compos\_0 \\
& k2\_scmfsa\_i X0 \neq np\_3) \wedge ((k2\_compos\_0 k2\_scmfsa\_i X0 \neq np\_4) \wedge \\
& ((k2\_compos\_0 k2\_scmfsa\_i X0 \neq np\_5) \wedge ((k2\_compos\_0 k2\_scmfsa\_i \\
& X0 \neq np\_6) \wedge ((k2\_compos\_0 k2\_scmfsa\_i X0 \neq np\_7) \wedge (k2\_compos\_0 \\
& k2\_scmfsa\_i X0 \neq np\_8)))))))))) \wedge (\neg(X0 \in ReplSep4 (toset (\lambda X1 : \\
& \iota.m2\_subset\_1 X1 k4\_ordinal1 (k7\_card\_1 np\_13))) (\lambda X1 : \\
& \iota.toset (\lambda X2 : \iota.m1\_subset\_1 X2 k2\_scm\_inst)) (\lambda X1 : \\
& \iota.\lambda X2 : \iota.toset (\lambda X3 : \iota.m1\_subset\_1 X3 k2\_scm\_inst)) \\
& (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.toset (\lambda X4 : \iota.m1\_subset\_1 \\
& X4 k1\_scmfsa\_i)) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \iota.\lambda X4 : \\
& \iota.X1 \in k2\_tarski np\_9 np\_10) (\lambda X1 : \iota.\lambda X2 : \iota.\lambda X3 : \\
& \iota.\lambda X4 : \iota.k3\_xtuple\_0 X1 k1\_xboole\_0 (k11\_finseq\_1 X2 X4 \\
& X3))) \wedge ((k2\_compos\_0 k2\_scmfsa\_i X0 = np\_9) \vee (k2\_compos\_0 k2\_scmfsa\_i \\
& X0 = np\_10))) \wedge (\neg(X0 \in ReplSep3 (toset (\lambda X1 : \iota.m2\_subset\_1 \\
& X1 k4\_ordinal1 (k7\_card\_1 np\_13))) (\lambda X1 : \iota.toset (\lambda X2 : \\
& \iota.m1\_subset\_1 X2 k2\_scm\_inst)) (\lambda X1 : \iota.\lambda X2 : \iota.toset \\
& (\lambda X3 : \iota.m1\_subset\_1 X3 k1\_scmfsa\_i)) (\lambda X1 : \iota.\lambda X2 : \\
& \iota.\lambda X3 : \iota.X1 \in k2\_tarski np\_11 np\_12) (\lambda X1 : \iota.\lambda X2 : \\
& \iota.\lambda X3 : \iota.k3\_xtuple\_0 X1 k1\_xboole\_0 (k10\_finseq\_1 X2 X3))) \wedge \\
& ((k2\_compos\_0 k2\_scmfsa\_i X0 = np\_11) \vee (k2\_compos\_0 k2\_scmfsa\_i \\
& X0 = np\_12))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\neg v1\_xboole\_0 np\_12 \tag{2}$$

Assume the following.

$$\neg v1\_xboole\_0 np\_11 \tag{3}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.k5\_xtuple\_0 (k3\_xtuple\_0 X0 \\
& X1 X2) = X1
\end{aligned} \tag{5}$$

Assume the following.

$$v1\_xboole\_0 k1\_xboole\_0 \tag{6}$$

### Theorem 1

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