

# t7\_scmfsa10 (TMUrGLhbrAzWLMGjCAjfy- tEoPDBFMxkLyc6)

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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  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k12\_scmfsa\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_7 : \iota$  be given. Let  $k12\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $u1\_compos\_1 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_ami\_3 : \iota$  be given. Let  $k8\_ami\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. k9\_finseq\_1 X0 = k5\_finseq\_1 X0 \quad (2)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow \\ (k12\_finseq\_1 X0 X1 = k5\_finseq\_1 X1) \end{aligned} \quad (4)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (5)$$

Assume the following.

$$\neg v1\_xboole\_0 k1\_numbers \quad (6)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((m1\_subset\_1 X0 k5\_numbers)\wedge((v1\_ami\_2 \\ X1)\wedge(m1\_subset\_1 X1 (u1\_struct\_0 k1\_scmfsa\_2))))\Rightarrow(m1\_subset\_1 \\ (k12\_scmfsa\_2 X0 X1) (u1\_compos\_1 k1\_scmfsa\_2)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0)\Rightarrow(\forall X1.((v1\_ami\_2 X1)\wedge(m1\_subset\_1 \\ X1 (u1\_struct\_0 k1\_ami\_3)))\Rightarrow(k8\_ami\_3 X0 X1 = k3\_xtuple\_0 np\_7 \\ (k9\_finseq\_1 X0) (k9\_finseq\_1 X1))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers)\Rightarrow(\forall X1.((v1\_ami\_2 \\ X1)\wedge(m1\_subset\_1 X1 (u1\_struct\_0 k1\_scmfsa\_2)))\Rightarrow(\forall X2. \\ (m1\_subset\_1 X2 (u1\_compos\_1 k1\_scmfsa\_2))\Rightarrow((X2 = k12\_scmfsa\_2 \\ X0 X1)\Leftrightarrow(\exists X3.((v1\_ami\_2 X3)\wedge(m1\_subset\_1 X3 (u1\_struct\_0 \\ k1\_ami\_3))))\wedge((X1 = X3)\wedge(X2 = k8\_ami\_3 X0 X3)))))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1)\Rightarrow(v7\_ordinal1 X0) \quad (11)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_ami\_2 X0)\wedge(m1\_subset\_1 X0 (u1\_struct\_0 k1\_scmfsa\_2)))\Rightarrow \\ (\forall X1.(m2\_subset\_1 X1 k1\_numbers k5\_numbers)\Rightarrow(k12\_scmfsa\_2 \\ X1 X0 = k3\_xtuple\_0 np\_7 (k12\_finseq\_1 k5\_numbers X1) (k9\_finseq\_1 \\ X0))) \end{aligned}$$