

## t14\_scmfsa\_m

(TMa1mYkpdVyYKUV3CtkAjWcsQ1amtWYbw9G)

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Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_scmfsa\_2 : \iota$  be given. Let  $k2\_scmfsa\_m : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $k6\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_ami\_2 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_scmfsa\_2 : \iota$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k4\_scmfsa\_2 : \iota \Rightarrow \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v4\_membered : \iota \Rightarrow o$  be given. Let  $v5\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((\neg v1\_xboole\_0 X0) \wedge (v6\_membered X0)) \Rightarrow (k6\_seq\_4 X0 = k2\_xxreal\_2 X0) \quad (1)$$

Assume the following.

$$\forall X0.((v6\_membered X0) \wedge (v1\_xxreal\_2 X0)) \Rightarrow ((v1\_xxreal\_0 (k2\_xxreal\_2 X0)) \wedge (v7\_ordinal1 (k2\_xxreal\_2 X0))) \quad (2)$$

Assume the following.

$$\forall X0.((v1\_finset\_1 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k2\_scmfsa\_2))) \Rightarrow ((v1\_ami\_2 (k2\_scmfsa\_m X0)) \wedge (m1\_subset\_1 (k2\_scmfsa\_m X0) (u1\_struct\_0 k1\_scmfsa\_2))) \quad (3)$$

Assume the following.

$$\forall X0.((v2\_membered X0) \wedge (v1\_xxreal\_2 X0)) \Rightarrow (\forall X1. (v1\_xxreal\_0 X1) \Rightarrow ((X1 = k2\_xxreal\_2 X0) \Leftrightarrow ((X1 \in X0) \wedge (\forall X2. (v1\_xxreal\_0 X2) \Rightarrow ((X2 \in X0) \Rightarrow (r1\_xxreal\_0 X1 X2)))))) \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_finset\_1 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k2\_scmf\_sa\_2))) \Rightarrow \\
& (\forall X1.((v1\_ami\_2 X1) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 k1\_scmf\_sa\_2))) \Rightarrow \\
& ((X1 = k2\_scmf\_sa\_m X0) \Leftrightarrow (\exists X2.((\neg v1\_xboole\_0 X2) \wedge (m1\_subset\_1 \\
& X2 (k1\_zfmisc\_1 k5\_numbers)))) \wedge ((X1 = k4\_scmf\_sa\_2 (k6\_seq\_4 X2)) \wedge \\
& (X2 = ReplSep (toset (\lambda X3 : \iota.m2\_subset\_1 X3 k1\_numbers k5\_numbers) \\
& (\lambda X3 : \iota.\neg k4\_scmf\_sa\_2 X3 \in X0) (\lambda X3 : \iota.X3))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(v3\_membered X0) \Rightarrow (v2\_membered X0) \tag{6}$$

Assume the following.

$$\forall X0.((v6\_membered X0) \wedge (\neg v1\_xboole\_0 X0)) \Rightarrow ((v6\_membered X0) \wedge ((\neg v1\_xboole\_0 X0) \wedge (v1\_xreal\_2 X0))) \tag{7}$$

Assume the following.

$$\forall X0.(v4\_membered X0) \Rightarrow (v3\_membered X0) \tag{8}$$

Assume the following.

$$\forall X0.(v5\_membered X0) \Rightarrow (v4\_membered X0) \tag{9}$$

Assume the following.

$$\forall X0.(v6\_membered X0) \Rightarrow (v5\_membered X0) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k5\_numbers)) \Rightarrow (v6\_membered X0) \tag{11}$$

**Theorem 1**

$$\forall X0.((v1\_finset\_1 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k2\_scmf\_sa\_2))) \Rightarrow (\neg k2\_scmf\_sa\_m X0 \in X0)$$