

t18\_scmpds\_4  
(TMKkg2iXAVTXLEaWQTYe9N8YHaonXMp58XE)

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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  $k1\_scmpds\_2 : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k7\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k7\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v2\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_extpro\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_memstr\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_compos\_1 : \iota \Rightarrow o$  be given. Let  $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_setfam\_1 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((v1\_ami\_2 X0) \wedge (m1\_subset\_1 X0 (u1\_struct\_0 k1\_scmpds\_2))) \Rightarrow (X0 \neq k4\_struct\_0 k1\_scmpds\_2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (k9\_xtuple\_0 (k2\_funcop\_1 X0 X1) = X0) \wedge (r1\_tarski (k10\_xtuple\_0 (k2\_funcop\_1 X0 X1)) (k1\_tarski X1)) \quad (2)$$

Assume the following.

$$((v2\_xxreal\_0 np\_2) \wedge (m2\_subset\_1 np\_2 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_2 k5\_numbers) \wedge (m1\_subset\_1 np\_2 k1\_numbers)) \quad (3)$$

Assume the following.

$$\neg v1\_xboole\_0 np\_2 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k7\_funcop\_1 X0 X1 = k2\_funcop\_1 X0 X1 \quad (5)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (6)$$

Assume the following.

$$(v2\_memstr\_0 \ k1\_scmpds\_2 \ np\_2) \wedge ((v3\_memstr\_0 \ k1\_scmpds\_2 \ np\_2) \wedge (v1\_extpro\_1 \ k1\_scmpds\_2 \ np\_2)) \quad (7)$$

Assume the following.

$$(\neg v2\_struct\_0 \ k1\_scmpds\_2) \wedge (v1\_extpro\_1 \ k1\_scmpds\_2 \ np\_2) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (l1\_extpro\_1 \ X1 \ X0) \Rightarrow ((l1\_memstr\_0 \ X1 \ X0) \wedge (l1\_compos\_1 \ X1)) \quad (9)$$

Assume the following.

$$(v1\_extpro\_1 \ k1\_scmpds\_2 \ np\_2) \wedge (l1\_extpro\_1 \ k1\_scmpds\_2 \ np\_2) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. k16\_funcop\_1 \ X0 \ X1 = k7\_funcop\_1 \ (k1\_tarski \ X0) \ X1 \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1\_tarski \ X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_setfam\_1 \ X0) \Rightarrow (\forall X1. ((\neg v2\_struct\_0 \ X1) \wedge \\ & ((v2\_memstr\_0 \ X1 \ X0) \wedge ((v3\_memstr\_0 \ X1 \ X0) \wedge (l1\_memstr\_0 \ X1 \ X0)))) \Rightarrow \\ & (\forall X2. (v7\_ordinal1 \ X2) \Rightarrow (k7\_memstr\_0 \ X0 \ X1 \ X2 = k16\_funcop\_1 \\ & (k4\_struct\_0 \ X1) \ X2))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 \ X0 \ k4\_ordinal1) \Rightarrow (v7\_ordinal1 \ X0) \quad (14)$$

Assume the following.

$$\forall X0. ((\neg v1\_xboole\_0 \ X0) \wedge (v7\_ordinal1 \ X0)) \Rightarrow ((\neg v1\_xboole\_0 \ X0) \wedge ((v7\_ordinal1 \ X0) \wedge (\neg v1\_setfam\_1 \ X0))) \quad (15)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((v1\_ami\_2 \ X0) \wedge (m1\_subset\_1 \ X0 \ (u1\_struct\_0 \ k1\_scmpds\_2))) \Rightarrow \\ & (\forall X1. (m1\_subset\_1 \ X1 \ k5\_numbers) \Rightarrow (\neg X0 \in k9\_xtuple\_0 \ (k7\_memstr\_0 \\ & np\_2 \ k1\_scmpds\_2 \ X1))) \end{aligned}$$