

# t1\_scmring4 (TMGRWFgbcrvH- bAS1jysvtFNxFr6NsRKhNFU)

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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  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v7\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v13\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v2\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_group\_1 : \iota \Rightarrow o$  be given. Let  $v4\_vectsp\_1 : \iota \Rightarrow o$  be given. Let  $v5\_vectsp\_1 : \iota \Rightarrow o$  be given. Let  $l6\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $k2\_scmring3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k10\_ami\_3 : \iota \Rightarrow \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0\ np\_1) \wedge (m2\_subset\_1\ np\_1\ k1\_numbers\ k5\_numbers)) \wedge \\ & ((m1\_subset\_1\ np\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_1\ k1\_numbers)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge \\ & (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \end{aligned} \quad (2)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1\_xboole\_0\ X0) \wedge \\ & ((\neg v1\_xboole\_0\ X1) \wedge ((m1\_subset\_1\ X2\ X0) \wedge (m1\_subset\_1\ X3\ X1)))) \Rightarrow \\ & (k1\_domain\_1\ X0\ X1\ X2\ X3 = k4\_tarski\ X2\ X3) \end{aligned} \quad (4)$$

Assume the following.

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

Assume the following.

$$m1\_subset\_1 \ k5\_numbers \ (k1\_zfmisc\_1 \ k1\_numbers) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2\_struct\_0 \ X0) \wedge ((v13\_algstr\_0 \ X0) \wedge ((v2\_rlvect\_1 \\ &X0) \wedge ((v3\_rlvect\_1 \ X0) \wedge ((v4\_rlvect\_1 \ X0) \wedge ((v3\_group\_1 \ X0) \wedge \\ &(v4\_vectsp\_1 \ X0) \wedge ((v5\_vectsp\_1 \ X0) \wedge (l6\_algstr\_0 \ X0))))))) \Rightarrow \\ &(\forall X1. (m1\_subset\_1 \ X1 \ k5\_numbers) \Rightarrow (k2\_scmring3 \ X0 \ X1 = k10\_ami\_3 \\ &X1)) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. (v7\_ordinal1 \ X0) \Rightarrow (k10\_ami\_3 \ X0 = k4\_tarski \ np\_1 \ X0) \quad (8)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 \ X0 \ k4\_ordinal1) \Rightarrow (v7\_ordinal1 \ X0) \quad (9)$$

Assume the following.

$$\forall X0. (v1\_xboole\_0 \ X0) \Rightarrow (\forall X1. (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0)) \Rightarrow (v1\_xboole\_0 \ X1)) \quad (10)$$

**Theorem 1**

$$\begin{aligned} \forall X0. (m2\_subset\_1 \ X0 \ k1\_numbers \ k5\_numbers) \Rightarrow (\forall X1. \\ &((\neg v2\_struct\_0 \ X1) \wedge ((\neg v7\_struct\_0 \ X1) \wedge ((v13\_algstr\_0 \ X1) \wedge \\ &(v2\_rlvect\_1 \ X1) \wedge ((v3\_rlvect\_1 \ X1) \wedge ((v4\_rlvect\_1 \ X1) \wedge ((v3\_group\_1 \\ &X1) \wedge ((v4\_vectsp\_1 \ X1) \wedge ((v5\_vectsp\_1 \ X1) \wedge (l6\_algstr\_0 \ X1))))))) \Rightarrow \\ &(k2\_scmring3 \ X1 \ X0 = k1\_domain\_1 \ k5\_numbers \ k5\_numbers \ np\_1 \ X0)) \end{aligned}$$