

t25\_group\_9  
(TMPFWTJ4emKop78FghpVkaN5PhR9n2xAnbs)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_group\_1 : \iota \Rightarrow o$  be given. Let  $v3\_group\_1 : \iota \Rightarrow o$  be given. Let  $v3\_group\_9 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_group\_9 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_group\_9 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_group\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k18\_group\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k15\_group\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 X0 \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2\_struct\_0 X1) \wedge ((v2\_group\_1 X1) \wedge \\ & (v3\_group\_1 X1) \wedge ((v3\_group\_9 X1 X0) \wedge (l1\_group\_9 X1 X0)))) \Rightarrow ( \\ & \forall X2. (m1\_group\_9 X2 X0 X1) \Rightarrow (\forall X3. (m1\_group\_9 X3 X0 \\ & X1) \Rightarrow ((r1\_tarski (u1\_struct\_0 X2) (u1\_struct\_0 X3)) \Rightarrow (m1\_group\_9 \\ & X2 X0 X3)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X1) \wedge ((v2\_group\_1 \\ & X1) \wedge ((v3\_group\_1 X1) \wedge ((v3\_group\_9 X1 X0) \wedge (l1\_group\_9 X1 X0)))) \wedge \\ & (m1\_group\_9 X2 X0 X1)) \Rightarrow (m1\_subset\_1 (k15\_group\_9 X0 X1 X2) (k1\_zfmisc\_1 \\ & (u1\_struct\_0 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2\_struct\_0 X1) \wedge ((v2\_group\_1 X1) \wedge \\ & (v3\_group\_1 X1) \wedge ((v3\_group\_9 X1 X0) \wedge (l1\_group\_9 X1 X0)))) \Rightarrow ( \\ & \forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X1))) \Rightarrow ( \\ & \forall X3. ((v2\_group\_9 X3 X0) \wedge (m1\_group\_9 X3 X0 X1)) \Rightarrow ((X3 = k18\_group\_9 \\ & X0 X1 X2) \Leftrightarrow ((r1\_tarski X2 (u1\_struct\_0 X3)) \wedge (\forall X4. ((v2\_group\_9 \\ & X4 X0) \wedge (m1\_group\_9 X4 X0 X1)) \Rightarrow ((r1\_tarski X2 (u1\_struct\_0 X4)) \Rightarrow \\ & (m1\_group\_9 X3 X0 X4)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2\_struct\_0 X1)\wedge((v2\_group\_1 X1)\wedge \\ & (v3\_group\_1 X1)\wedge((v3\_group\_9 X1 X0)\wedge(l1\_group\_9 X1 X0))))\Rightarrow( \\ & \forall X2.(m1\_group\_9 X2 X0 X1)\Rightarrow(k15\_group\_9 X0 X1 X2 = u1\_struct\_0 \\ & X2)) \end{aligned} \tag{5}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.((\neg v2\_struct\_0 X1)\wedge((v2\_group\_1 X1)\wedge \\ & (v3\_group\_1 X1)\wedge((v3\_group\_9 X1 X0)\wedge(l1\_group\_9 X1 X0))))\Rightarrow( \\ & \forall X2.((v2\_group\_9 X2 X0)\wedge(m1\_group\_9 X2 X0 X1))\Rightarrow(k18\_group\_9 \\ & X0 X1 (k15\_group\_9 X0 X1 X2) = X2)) \end{aligned}$$