

t80\_group\_11  
(TMPZyhpe5MhPDxbnTTrU1EjsENij26iZuY4)

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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  $l3\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v1\_group\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_group\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v15\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_group\_11 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.((v1\_group\_3 X1 X0) \wedge (m1\_group\_2 \\ & X1 X0)) \Rightarrow (\forall X2.((v1\_group\_3 X2 X0) \wedge (m1\_group\_2 X2 X0)) \Rightarrow ( \\ & \neg(m1\_group\_2 X2 X1) \wedge (\forall X3.((v15\_algstr\_0 X3) \wedge ((v1\_group\_3 \\ & X3 X0) \wedge (m1\_group\_2 X3 X0)))) \Rightarrow (u1\_struct\_0 X3 \neq k3\_group\_11 X0 X1 \\ & X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_group\_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1\_group\_2 X2 X0) \Rightarrow (\forall X3.(m1\_group\_2 X3 X0) \Rightarrow ((m1\_group\_2 \\ & X2 X3) \Rightarrow (r1\_tarski (k3\_group\_11 X0 X1 X3) (k3\_group\_11 X0 X1 X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_group\_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1\_group\_2 X2 X0) \Rightarrow ((r1\_tarski (u1\_struct\_0 X1) (u1\_struct\_0 \\ & X2)) \Rightarrow (m1\_group\_2 X1 X2)))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_group\_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1\_group\_2 X2 X0) \Rightarrow (r1\_tarski (k3\_group\_11 X0 X2 X1) (k8\_group\_2 \\ & X0 X2)))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ X0\ X0 \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1 \\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.(m1\_group\_2\ X1\ X0)\Rightarrow(k8\_group\_2 \\ X0\ X1 = u1\_struct\_0\ X1)) \end{aligned} \quad (6)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1 \\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.((v1\_group\_3\ X1\ X0)\wedge(m1\_group\_2 \\ X1\ X0))\Rightarrow(\forall X2.((v1\_group\_3\ X2\ X0)\wedge(m1\_group\_2\ X2\ X0))\Rightarrow( \\ \exists X3.((v15\_algstr\_0\ X3)\wedge((v1\_group\_3\ X3\ X0)\wedge(m1\_group\_2 \\ X3\ X0))\wedge((u1\_struct\_0\ X3 = k3\_group\_11\ X0\ X1\ X1)\wedge(r1\_tarski\ (k3\_group\_11 \\ X0\ X2\ X1)\ (k3\_group\_11\ X0\ X2\ X3)))))) \end{aligned}$$