

t125\_group\_3  
(TMKvBHRVVLZ7G7yhKuTyWjx1Vb2Q7pDbF7g)

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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  $v15\_algstr\_0 : \iota \Rightarrow o$  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  $k2\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.((v1\_group\_3 X1 X0) \wedge (m1\_group\_2 \\ & X1 X0)) \Rightarrow (\forall X2.((v15\_algstr\_0 X2) \wedge ((v1\_group\_3 X2 X0) \wedge ( \\ & m1\_group\_2 X2 X0)))) \Rightarrow (r1\_tarski (k2\_group\_2 X0 (k8\_group\_2 X0 X2) \\ & (k8\_group\_2 X0 X1)) (k2\_group\_2 X0 (k8\_group\_2 X0 X1) (k8\_group\_2 \\ & X0 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.((v15\_algstr\_0 X1) \wedge ((v1\_group\_3 \\ & X1 X0) \wedge (m1\_group\_2 X1 X0))) \Rightarrow (\forall X2.((v15\_algstr\_0 X2) \wedge ( \\ & (v1\_group\_3 X2 X0) \wedge (m1\_group\_2 X2 X0))) \Rightarrow (k2\_group\_2 X0 (k8\_group\_2 \\ & X0 X1) (k8\_group\_2 X0 X2) = k2\_group\_2 X0 (k8\_group\_2 X0 X2) (k8\_group\_2 \\ & X0 X1)))) \end{aligned}$$