

# t64\_group\_4 (TM- cKA1VWRsXNiL5AQcQ81iEttiQ5TVtnvZk)

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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  $m1\_group\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v15\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $k8\_group\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_group\_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1\_group\_2 X2 X0) \Rightarrow (\forall X3.((v15\_algstr\_0 X3) \wedge (m1\_group\_2 \\ & X3 X0) \Rightarrow (((m1\_group\_2 X1 X3) \wedge (m1\_group\_2 X2 X3)) \Rightarrow (m1\_group\_2 \\ & (k8\_group\_4 X0 X1 X2) X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_group\_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1\_group\_2 X2 X0) \Rightarrow (\forall X3.(m1\_group\_2 X3 X0) \Rightarrow ((m1\_group\_2 \\ & X1 X2) \Rightarrow (m1\_group\_2 X1 (k8\_group\_4 X0 X2 X3)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_group\_2 X1 X0) \Rightarrow (\forall X2. \\ & (m1\_group\_2 X2 X0) \Rightarrow ((m1\_group\_2 X1 (k8\_group\_4 X0 X1 X2)) \wedge (m1\_group\_2 \\ & X2 (k8\_group\_4 X0 X1 X2)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 \\ & X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \wedge ((m1\_group\_2 X1 X0) \wedge \\ & (m1\_group\_2 X2 X0))) \Rightarrow ((v15\_algstr\_0 (k8\_group\_4 X0 X1 X2)) \wedge (m1\_group\_2 \\ & (k8\_group\_4 X0 X1 X2) X0)) \end{aligned} \tag{4}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_group\_2 X1 X0) \Rightarrow (\forall X2. \\ & ((v15\_algstr\_0 X2) \wedge (m1\_group\_2 X2 X0)) \Rightarrow (\forall X3.((v15\_algstr\_0 \\ & X3) \wedge (m1\_group\_2 X3 X0)) \Rightarrow ((m1\_group\_2 X1 X3) \Rightarrow (m1\_group\_2 (k8\_group\_4 \\ & X0 X1 X2) (k8\_group\_4 X0 X3 X2))))) \end{aligned}$$