

# t1\_autgroup (TMFYN- jmVK56AX38X9iC4cvRAWaK9yUGadL9)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v15\_algstr\_0 : \iota \Rightarrow o$  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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r1\_struct\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_group\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_group\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2\_struct\_0 X0) \wedge ((v15\_algstr\_0 X0) \wedge ((v2\_group\_1 \\ &X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1. (m1\_group\_2 \\ &X1 X0) \Rightarrow ((v1\_group\_3 X1 X0) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 \\ &X0)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((m1\_subset\_1 \\ &X3 (u1\_struct\_0 X1)) \Rightarrow (r1\_struct\_0 X1 (k2\_group\_3 X0 X3 X2))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2\_struct\_0 X0) \wedge ((v15\_algstr\_0 X0) \wedge ((v2\_group\_1 \\ &X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1. (m1\_group\_2 \\ &X1 X0) \Rightarrow ((\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. \\ &(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((m1\_subset\_1 X3 (u1\_struct\_0 \\ &X1)) \Rightarrow (r1\_struct\_0 X1 (k2\_group\_3 X0 X3 X2)))))) \Rightarrow (v1\_group\_3 X1 \\ &X0))) \end{aligned} \quad (2)$$

## Theorem 1

$$\begin{aligned} \forall X0. (&(\neg v2\_struct\_0 X0) \wedge ((v15\_algstr\_0 X0) \wedge ((v2\_group\_1 \\ &X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1. (m1\_group\_2 \\ &X1 X0) \Rightarrow ((\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (\forall X3. \\ &(m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow ((m1\_subset\_1 X3 (u1\_struct\_0 \\ &X1)) \Rightarrow (r1\_struct\_0 X1 (k2\_group\_3 X0 X3 X2)))))) \Leftrightarrow (v1\_group\_3 X1 \\ &X0))) \end{aligned}$$