

# l37\_group\_9

(TMXdD5HUhn24GfmmvavBokFRXCxj4KxfAQY)

October 27, 2020

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  $m1\_group\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v15\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $g3\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u2\_algstr\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_group\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_group\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_group\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2\_struct\_0 X1) \wedge ((v2\_group\_1 X1) \wedge \\ & (v3\_group\_1 X1) \wedge ((v3\_group\_9 X1 X0) \wedge (l1\_group\_9 X1 X0)))) \Rightarrow ( \\ \forall X2. & ((v4\_group\_9 X2 X0 X1) \wedge (m1\_group\_9 X2 X0 X1)) \Rightarrow ((v15\_algstr\_0 \\ & (g3\_algstr\_0 (u1\_struct\_0 X2) (u2\_algstr\_0 X2))) \wedge ((v1\_group\_3 \\ & (g3\_algstr\_0 (u1\_struct\_0 X2) (u2\_algstr\_0 X2)) X1) \wedge (m1\_group\_2 \\ & (g3\_algstr\_0 (u1\_struct\_0 X2) (u2\_algstr\_0 X2)) X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2\_struct\_0 X1) \wedge ((v2\_group\_1 X1) \wedge \\ & (v3\_group\_1 X1) \wedge ((v3\_group\_9 X1 X0) \wedge (l1\_group\_9 X1 X0)))) \Rightarrow ( \\ & \forall X2. (m1\_group\_9 X2 X0 X1) \Rightarrow ((v4\_group\_9 X2 X0 X1) \Leftrightarrow (\forall X3. \\ & ((v15\_algstr\_0 X3) \wedge (m1\_group\_2 X3 X1)) \Rightarrow ((X3 = g3\_algstr\_0 (u1\_struct\_0 \\ & X2) (u2\_algstr\_0 X2)) \Rightarrow (v1\_group\_3 X3 X1)))))) \end{aligned} \tag{2}$$

## Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2\_struct\_0 X1) \wedge ((v2\_group\_1 X1) \wedge \\ & (v3\_group\_1 X1) \wedge ((v3\_group\_9 X1 X0) \wedge (l1\_group\_9 X1 X0)))) \Rightarrow ( \\ & \forall X2. (m1\_group\_9 X2 X0 X1) \Rightarrow ((v15\_algstr\_0 (g3\_algstr\_0 \\ & (u1\_struct\_0 X2) (u2\_algstr\_0 X2))) \wedge (m1\_group\_2 (g3\_algstr\_0 \\ & (u1\_struct\_0 X2) (u2\_algstr\_0 X2)) X1))) \end{aligned}$$