

## t76\_group\_6

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v7\_struct\_0 : \iota \Rightarrow o$  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  $r2\_group\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_group\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v8\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k7\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k7\_group\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v2\_group\_1 \\ & X1) \wedge ((v3\_group\_1 X1) \wedge (l3\_algstr\_0 X1)))) \Rightarrow (((r1\_group\_6 X0 X1) \wedge \\ & (v8\_struct\_0 X0)) \Rightarrow (v8\_struct\_0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v15\_algstr\_0 X0) \wedge ((v2\_group\_1 \\ & X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 \\ & X1) \wedge ((v15\_algstr\_0 X1) \wedge ((v2\_group\_1 X1) \wedge ((v3\_group\_1 X1) \wedge \\ & l3\_algstr\_0 X1)))) \Rightarrow ((r2\_group\_6 X0 X1) \Rightarrow (k7\_struct\_0 X0 = k7\_struct\_0 \\ & X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & (\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v7\_struct\_0 X0) \wedge ((v2\_group\_1 \\ & X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow ((k7\_group\_1 X0 = \\ & np\_1) \wedge (v8\_struct\_0 X0))) \wedge (\forall X0.((\neg v2\_struct\_0 X0) \wedge \\ & (v8\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 \\ & X0)))) \Rightarrow ((k7\_group\_1 X0 = np\_1) \Rightarrow (v7\_struct\_0 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1.(((\neg v2\_struct\_0 X0) \wedge ((v15\_algstr\_0 X0) \wedge \\ & ((v2\_group\_1 X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \wedge ((\neg \\ & v2\_struct\_0 X1) \wedge ((v15\_algstr\_0 X1) \wedge ((v2\_group\_1 X1) \wedge ((v3\_group\_1 \\ & X1) \wedge (l3\_algstr\_0 X1)))))) \Rightarrow ((r2\_group\_6 X0 X1) \Leftrightarrow (r1\_group\_6 X0 \\ & X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.((v8\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (k7\_group\_1 X0 = k7\_struct\_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.(l3\_algstr\_0 X0) \Rightarrow (l1\_struct\_0 X0) \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v7\_struct\_0 X0) \wedge ((v15\_algstr\_0 \\ & X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))))) \Rightarrow \\ & (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v15\_algstr\_0 X1) \wedge ((v2\_group\_1 \\ & X1) \wedge ((v3\_group\_1 X1) \wedge (l3\_algstr\_0 X1)))))) \Rightarrow ((r2\_group\_6 X0 X1) \Rightarrow \\ & (v7\_struct\_0 X1)) \end{aligned}$$