

# t12\_group\_6

## (TMM43StuuNcrs4jxRhZTkz9aR8z4NZxvWXU)

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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  $k6\_group\_2 : \iota \Rightarrow \iota$  be given. Let  $v8\_struct\_0 : \iota \Rightarrow o$  be given. Let  $m1\_group\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_group\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $r1\_group\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.((v8\_struct\_0 X1) \wedge ((v15\_algstr\_0 \\ X1) \wedge (m1\_group\_2 X1 X0))) \Rightarrow ((k7\_group\_1 X1 = np\_1) \Rightarrow (r1\_group\_2 \\ X0 X1 (k6\_group\_2 X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (m1\_group\_2 X0 X0) \tag{2}$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 \\ X0) \wedge ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \wedge (((v15\_algstr\_0 X1) \wedge \\ (m1\_group\_2 X1 X0)) \wedge ((v15\_algstr\_0 X2) \wedge (m1\_group\_2 X2 X0)))) \Rightarrow \\ ((r1\_group\_2 X0 X1 X2) \Leftrightarrow (X1 = X2)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow ((v15\_algstr\_0 (k6\_group\_2 X0)) \wedge (m1\_group\_2 \\ (k6\_group\_2 X0) X0)) \end{aligned} \tag{5}$$

**Theorem 1**

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge (v7\_struct\_0 X0) \wedge (v15\_algstr\_0 X0) \wedge (v2\_group\_1 X0) \wedge (v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)) \Rightarrow (k6\_group\_2 X0 = X0)$$