

t20\_group\_3  
(TMF5UvmhVPrJtJagY3KKaj74nK22SpJZSB9)

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  $l3\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_group\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow ((k6\_algstr\_0 \\ & X0 (k6\_algstr\_0 X0 X1 X2) (k2\_group\_1 X0 X2) = X1) \wedge ((k6\_algstr\_0 \\ & X0 (k6\_algstr\_0 X0 X1 (k2\_group\_1 X0 X2)) X2 = X1) \wedge ((k6\_algstr\_0 \\ & X0 (k6\_algstr\_0 X0 (k2\_group\_1 X0 X2)) X2) X1 = X1) \wedge ((k6\_algstr\_0 \\ & X0 X1 (k6\_algstr\_0 X0 X2 (k2\_group\_1 X0 X2)) X1 = X1) \wedge ((k6\_algstr\_0 \\ & X0 X1 (k6\_algstr\_0 X0 X2 (k2\_group\_1 X0 X2)) = X1) \wedge ((k6\_algstr\_0 \\ & X0 (k2\_group\_1 X0 X2) (k6\_algstr\_0 X0 X2 X1) = X1) \wedge (k6\_algstr\_0 X0 \\ & X2 (k6\_algstr\_0 X0 (k2\_group\_1 X0 X2) X1) = X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (k2\_group\_3 \\ & X0 X1 X2 = k6\_algstr\_0 X0 (k6\_algstr\_0 X0 (k2\_group\_1 X0 X2) X1) X2))) \end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 \\ & X0)) \Rightarrow (k2\_group\_3 X0 X1 X1 = X1)) \end{aligned}$$