

t65\_group\_6  
(TMZo6APc5L3gcoKp1b6xXm9Z2yH8m9aJAyA)

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  $v3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_group\_6 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_group\_2 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k5\_group\_6 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_group\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_group\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_group\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_funct\_1 : \iota \Rightarrow o$  be given. Let  $r1\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_group\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v15\_algstr\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.((v1\_group\_3 X1 X0) \wedge (m1\_group\_2 \\ & X1 X0)) \Rightarrow (v2\_funct\_2 (k8\_group\_6 X0 X1) (u1\_struct\_0 (k5\_group\_6 \\ & X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.((\neg v2\_struct\_0 X1) \wedge ((v2\_group\_1 \\ & X1) \wedge ((v3\_group\_1 X1) \wedge (l3\_algstr\_0 X1)))) \Rightarrow (\forall X2.((v1\_funct\_1 \\ & X2) \wedge ((v1\_funct\_2 X2 (u1\_struct\_0 X1) (u1\_struct\_0 X0)) \wedge ((v1\_group\_6 \\ & X2 X1 X0) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\ & X1) (u1\_struct\_0 X0)))))) \Rightarrow ((v2\_funct\_1 X2) \Leftrightarrow (r1\_group\_2 X1 ( \\ & k9\_group\_6 X1 X0 X2) (k6\_group\_2 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow (\forall X1.((v15\_algstr\_0 X1) \wedge ((v1\_group\_3 \\ & X1 X0) \wedge (m1\_group\_2 X1 X0))) \Rightarrow (r1\_group\_2 X0 (k9\_group\_6 X0 (k5\_group\_6 \\ & X0 X1) (k8\_group\_6 X0 X1)) X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge \\ & ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \wedge ((v1\_group\_3 X1 X0) \wedge (m1\_group\_2 \\ & X1 X0))) \Rightarrow ((v1\_funct\_1 (k8\_group\_6 X0 X1)) \wedge ((v1\_funct\_2 (k8\_group\_6 \\ & X0 X1) (u1\_struct\_0 X0) (u1\_struct\_0 (k5\_group\_6 X0 X1))) \wedge (v1\_group\_6 \\ & (k8\_group\_6 X0 X1) X0 (k5\_group\_6 X0 X1)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge \\ & ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \wedge ((v1\_group\_3 X1 X0) \wedge (m1\_group\_2 \\ & X1 X0))) \Rightarrow ((v2\_group\_1 (k5\_group\_6 X0 X1)) \wedge (v3\_group\_1 (k5\_group\_6 \\ & X0 X1))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge \\ & ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \wedge ((v1\_group\_3 X1 X0) \wedge (m1\_group\_2 \\ & X1 X0))) \Rightarrow ((\neg v2\_struct\_0 (k5\_group\_6 X0 X1)) \wedge (v15\_algstr\_0 (k5\_group\_6 \\ & X0 X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow ((v15\_algstr\_0 (k6\_group\_2 X0)) \wedge (v1\_group\_3 \\ & (k6\_group\_2 X0) X0)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge \\ & ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \wedge ((v1\_group\_3 X1 X0) \wedge (m1\_group\_2 \\ & X1 X0))) \Rightarrow ((v1\_funct\_1 (k8\_group\_6 X0 X1)) \wedge ((v1\_funct\_2 (k8\_group\_6 \\ & X0 X1) (u1\_struct\_0 X0) (u1\_struct\_0 (k5\_group\_6 X0 X1))) \wedge (m1\_subset\_1 \\ & (k8\_group\_6 X0 X1) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) \\ & (u1\_struct\_0 (k5\_group\_6 X0 X1))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge ((v3\_group\_1 \\ & X0) \wedge (l3\_algstr\_0 X0)))) \Rightarrow ((v15\_algstr\_0 (k6\_group\_2 X0)) \wedge (m1\_group\_2 \\ & (k6\_group\_2 X0) X0)) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge ((v2\_group\_1 X0) \wedge \\ & ((v3\_group\_1 X0) \wedge (l3\_algstr\_0 X0)))) \wedge ((v1\_group\_3 X1 X0) \wedge (m1\_group\_2 \\ & X1 X0))) \Rightarrow (l3\_algstr\_0 (k5\_group\_6 X0 X1)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X0 X1)))\Rightarrow(((v1\_funct\_1 X2)\wedge((v2\_funct\_1 X2)\wedge(v2\_funct\_2 \\ & X2 X1)))\Rightarrow((v1\_funct\_1 X2)\wedge(v3\_funct\_2 X2 X0 X1))) \end{aligned} \quad (11)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0)\wedge((v2\_group\_1 X0)\wedge((v3\_group\_1 \\ & X0)\wedge(l3\_algstr\_0 X0))))\Rightarrow(v3\_funct\_2 (k8\_group\_6 X0 (k6\_group\_2 \\ & X0)) (u1\_struct\_0 X0) (u1\_struct\_0 (k5\_group\_6 X0 (k6\_group\_2 \\ & X0)))) \end{aligned}$$