

t19\_gr\_cy\_2  
(TMUo1cLq7T4PZZDs1DjyqYmQKp4JtNBNRAN)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v8\_struct\_0 : \iota \Rightarrow o$  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  $k7\_group\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $r2\_group\_6 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_int\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

$$v1\_int\_2 \ np\_2 \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 \ X0 \ k5\_numbers) \Rightarrow & (\forall X1.((\neg v2\_struct\_0 \\ X1) \wedge ((v8\_struct\_0 \ X1) \wedge ((v15\_algstr\_0 \ X1) \wedge ((v2\_group\_1 \ X1) \wedge \\ ((v3\_group\_1 \ X1) \wedge (l3\_algstr\_0 \ X1)))))) \Rightarrow & (\forall X2.((\neg v2\_struct\_0 \\ X2) \wedge ((v8\_struct\_0 \ X2) \wedge ((v15\_algstr\_0 \ X2) \wedge ((v2\_group\_1 \ X2) \wedge \\ ((v3\_group\_1 \ X2) \wedge (l3\_algstr\_0 \ X2)))))) \Rightarrow & (((k7\_group\_1 \ X1 = X0) \wedge \\ ((k7\_group\_1 \ X2 = X0) \wedge (v1\_int\_2 \ X0))) \Rightarrow & (r2\_group\_6 \ X1 \ X2))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} ((v2\_xxreal\_0 \ np\_2) \wedge (m2\_subset\_1 \ np\_2 \ k1\_numbers \ k5\_numbers)) \wedge \\ ((m1\_subset\_1 \ np\_2 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_2 \ k1\_numbers)) \end{aligned} \tag{3}$$

**Theorem 1**

$$\begin{aligned} \forall X0.((\neg v2\_struct\_0 \ X0) \wedge ((v8\_struct\_0 \ X0) \wedge ((v15\_algstr\_0 \\ X0) \wedge ((v2\_group\_1 \ X0) \wedge ((v3\_group\_1 \ X0) \wedge (l3\_algstr\_0 \ X0)))))) \Rightarrow \\ (\forall X1.((\neg v2\_struct\_0 \ X1) \wedge ((v8\_struct\_0 \ X1) \wedge ((v15\_algstr\_0 \\ X1) \wedge ((v2\_group\_1 \ X1) \wedge ((v3\_group\_1 \ X1) \wedge (l3\_algstr\_0 \ X1)))))) \Rightarrow \\ (((k7\_group\_1 \ X0 = np\_2) \wedge (k7\_group\_1 \ X1 = np\_2)) \Rightarrow (r2\_group\_6 \\ X0 \ X1))) \end{aligned}$$