

## t15\_o\_ring\_1

(TMdj1FSPxvnUpnWNxMmtW5KHvunLdvJHF1N)

October 27, 2020

Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l6\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v3\_o\_ring\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v11\_o\_ring\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v13\_o\_ring\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l6\_algstr\_0 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow ((v11\_o\_ring\_1 X1 X0) \Rightarrow (v13\_o\_ring\_1 \\ & X1 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l6\_algstr\_0 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 \\ & (u1\_struct\_0 X0)) \Rightarrow (((v13\_o\_ring\_1 X1 X0) \wedge (v13\_o\_ring\_1 X2 X0)) \Rightarrow \\ & (v13\_o\_ring\_1 (k1\_algstr\_0 X0 X1 X2) X0)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l6\_algstr\_0 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow ((v3\_o\_ring\_1 X1 X0) \Rightarrow (v13\_o\_ring\_1 \\ & X1 X0))) \end{aligned} \tag{3}$$

### Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l6\_algstr\_0 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 \\ & (u1\_struct\_0 X0)) \Rightarrow (((v3\_o\_ring\_1 X1 X0) \wedge (v11\_o\_ring\_1 X2 X0)) \Rightarrow \\ & (v13\_o\_ring\_1 (k1\_algstr\_0 X0 X1 X2) X0)))) \end{aligned}$$