

# l1\_circled1

(TMV3ospPwptkM8hHG5Bud69M9rhoi2pQFQ5)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k5\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_rusub\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l2\_algstr\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(l1\_rlvect\_1 X0) \Rightarrow (l2\_algstr\_0 X0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge (l2\_algstr\_0 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (k1\_rusub\_5 \\ X0 X1 X2 = ReplSep2 (toset (\lambda X3 : \iota.m1\_subset\_1 X3 (u1\_struct\_0 \\ X0))) (\lambda X3 : \iota.toset (\lambda X4 : \iota.m1\_subset\_1 X4 (u1\_struct\_0 \\ X0))) (\lambda X3 : \iota.\lambda X4 : \iota.(X3 \in X1) \wedge (X4 \in X2)) (\lambda X3 : \iota. \\ \lambda X4 : \iota.k5\_algstr\_0 X0 X3 X4)))))) \quad (2) \end{aligned}$$

## Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge (l1\_rlvect\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\forall X4.(m1\_subset\_1 X4 \\ (u1\_struct\_0 X0)) \Rightarrow (((X3 \in X1) \wedge (X4 \in X2)) \Rightarrow (k5\_algstr\_0 X0 X3 X4 \in \\ k1\_rusub\_5 X0 X1 X2)))))) \end{aligned}$$