

t19\_rewrite1 (TM-  
LxUW7XRf5Evqu8TRjYsUtS68xL2fwxZBV)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $r1\_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_relat\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.\forall X2.(r1\_rewrite1 \\ & X0 X1 X2) \Rightarrow ((X1 = X2) \vee ((X1 \in k1\_relat\_1 X0) \wedge (X2 \in k1\_relat\_1 X0)))) \end{aligned} \tag{1}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.\forall X2.(r1\_rewrite1 \\ & X0 X1 X2) \Rightarrow ((X1 \in k1\_relat\_1 X0) \Leftrightarrow (X2 \in k1\_relat\_1 X0))) \end{aligned}$$