

t219\_xxreal\_1

(TMJskgJv6SeSkUniMsEG23UKBX3AKeSJdV8)

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Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xxreal\_0 : \iota$  be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (r1\_xxreal\_0 X0 k1\_xxreal\_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xxreal\_0 X2) \Rightarrow ((X0 \in k1\_xxreal\_1 X1 X2) \Leftrightarrow ((r1\_xxreal\_0 X1 X0) \wedge \\ & (r1\_xxreal\_0 X0 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$v1\_xxreal\_0 k1\_xxreal\_0 \quad (3)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (( \\ & r1\_xxreal\_0 X0 X1) \Rightarrow (X1 \in k1\_xxreal\_1 X0 k1\_xxreal\_0))) \end{aligned}$$