

# t19\_xxreal\_2 (TMbveAFDoBAqTyn- HZvWw1g7F7X6ER66PNQn)

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Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xxreal\_0 X2) \Rightarrow ((X0 \in k2\_xxreal\_1 X1 X2) \Leftrightarrow ((r1\_xxreal\_0 X1 X0) \wedge \\ & (\neg r1\_xxreal\_0 X2 X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (v2\_membered (k2\_xxreal\_1 X0 X1)) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (( \\ & m2\_xxreal\_2 X1 X0) \Leftrightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow ((X2 \in X0) \Rightarrow (r1\_xxreal\_0 \\ & X1 X2)))))) \end{aligned} \tag{3}$$

**Theorem 1**

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (m2\_xxreal\_2 X0 (k2\_xxreal\_1 X0 X1)))$$