

t68\_xxreal\_2  
(TMcM7gJcfZtFdP5JEHpnpd7uBzAo5pWTVzB)

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Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m2\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v2\_membered X1) \Rightarrow (\forall X2. \\ & (m2\_xxreal\_2 X2 X0) \Rightarrow (\forall X3.(m2\_xxreal\_2 X3 X1) \Rightarrow (m2\_xxreal\_2 \\ & (k4\_xxreal\_0 X2 X3) (k3\_xboole\_0 X0 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(v2\_membered X0) \Rightarrow (v2\_membered (k3\_xboole\_0 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (v1\_xxreal\_0 (k2\_xxreal\_2 X0)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (( \\ & X1 = k2\_xxreal\_2 X0) \Leftrightarrow ((m2\_xxreal\_2 X1 X0) \wedge (\forall X2.(m2\_xxreal\_2 \\ & X2 X0) \Rightarrow (r1\_xxreal\_0 X2 X1)))))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v2\_membered X1) \Rightarrow (r1\_xxreal\_0 \\ & (k4\_xxreal\_0 (k2\_xxreal\_2 X0) (k2\_xxreal\_2 X1) (k2\_xxreal\_2 \\ & (k3\_xboole\_0 X0 X1)))))) \end{aligned}$$