

t81\_xxreal\_2 (TM-  
ScgCH4aMnuTK7ch8TCJCTgWSyeeQoVdCc)

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Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $v6\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $m1\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow ((v6\_xxreal\_2 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow (\forall X3.(v1\_xxreal\_0 X3) \Rightarrow (((X1 \in X0) \wedge ((X2 \in X0) \wedge ((r1\_xxreal\_0 X1 X3) \wedge (r1\_xxreal\_0 X3 X2)))) \Rightarrow (X3 \in X0)))))) \tag{1}$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (v1\_xxreal\_0 (k1\_xxreal\_2 X0)) \tag{2}$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((X1 = k1\_xxreal\_2 X0) \Leftrightarrow ((m1\_xxreal\_2 X1 X0) \wedge (\forall X2.(m1\_xxreal\_2 X2 X0) \Rightarrow (r1\_xxreal\_0 X1 X2)))))) \tag{3}$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Leftrightarrow (\forall X1.(X1 \in X0) \Rightarrow (v1\_xxreal\_0 X1)) \tag{4}$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((m1\_xxreal\_2 X1 X0) \Leftrightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow ((X2 \in X0) \Rightarrow (r1\_xxreal\_0 X2 X1)))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow ((r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0)) \tag{6}$$

**Theorem 1**

$$\forall X0.(v2\_membered X0) \Rightarrow ((v6\_xxreal\_2 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow (((X1 \in X0) \wedge (r1\_xxreal\_0 X1 X2)) \Rightarrow ((r1\_xxreal\_0 (k1\_xxreal\_2 X0) X2) \vee (X2 \in X0))))))$$