

# t74\_xxreal\_2 (TMRFwySGHM- CFgdhC8s2bmFyDPi9XHwxwHkM)

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Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $v3\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $k2\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_0 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m2\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k4\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xxreal\_0 : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.((v2\_membered X0) \wedge (\neg v1\_xboole\_0 X0)) \Rightarrow ((\neg \forall X1. (m2\_xxreal\_2 X1 X0) \Rightarrow (X1 = k2\_xxreal\_0)) \Rightarrow (v3\_xxreal\_2 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow ((X1 \in k4\_xxreal\_1 X0 k1\_xxreal\_0) \Leftrightarrow (\neg r1\_xxreal\_0 X1 X0))) \quad (2)$$

Assume the following.

$$k1\_numbers = k4\_xxreal\_1 k2\_xxreal\_0 k1\_xxreal\_0 \quad (3)$$

Assume the following.

$$v1\_xxreal\_0 k2\_xxreal\_0 \quad (4)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (v1\_xxreal\_0 (k2\_xxreal\_2 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow ((v3\_xxreal\_2 X0) \Leftrightarrow (\exists X1.(v1\_xreal\_0 X1) \wedge (m2\_xxreal\_2 X1 X0))) \quad (6)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((X1 = k2\_xxreal\_2 X0) \Leftrightarrow ((m2\_xxreal\_2 X1 X0) \wedge (\forall X2.(m2\_xxreal\_2 X2 X0) \Rightarrow (r1\_xxreal\_0 X2 X1)))))) \quad (7)$$

Assume the following.

$$k1\_xxreal\_0 = k1\_numbers \quad (8)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Leftrightarrow (X0 \in k1\_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(v6\_membered X0) \Rightarrow ((v6\_membered X0) \wedge (v3\_xxreal\_2 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (v6\_membered X0) \quad (11)$$

**Theorem 1**

$$\forall X0.(v2\_membered X0) \Rightarrow ((v3\_xxreal\_2 X0) \Leftrightarrow (k2\_xxreal\_2 X0 \neq k2\_xxreal\_0))$$