

t65\_xxreal\_2  
(TMVZXPCS1y4SfqyDdfA9T8f7kDpMwg5s5SH)

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Let  $v2\_membered : \iota \Rightarrow o$  be given. Let  $m1\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v2\_membered X1) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (\forall X2.(m1\_xxreal\_2 X2 X1) \Rightarrow (m1\_xxreal\_2 X2 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(v2\_membered X1) \Rightarrow ((r1\_tarski X0 X1) \Rightarrow (v2\_membered X0)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski (k3\_xboole\_0 X0 X1) X0 \quad (3)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((k3\_xxreal\_0 X0 X1 = X0) \vee (k3\_xxreal\_0 X0 X1 = X1))) \quad (4)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(m1\_xxreal\_2 X1 X0) \Rightarrow (v1\_xxreal\_0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0 X0 X1 = k3\_xboole\_0 X1 X0 \quad (6)$$

**Theorem 1**

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v2\_membered X1) \Rightarrow (\forall X2.(m1\_xxreal\_2 X2 X0) \Rightarrow (\forall X3.(m1\_xxreal\_2 X3 X1) \Rightarrow (m1\_xxreal\_2 (k3\_xxreal\_0 X2 X3) (k3\_xboole\_0 X0 X1))))))$$