

t87_xxreal_2
(TMKsHFUN2v5GyffutBs4rshr8xCdw1NixuT)

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Let $v2_membered : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $k1_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $v6_xxreal_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow ((\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2.(v1_xxreal_0 X2) \Rightarrow ((X1 \in X0) \Rightarrow ((r1_xxreal_0 X2 (k2_xxreal_2 X0)) \vee (r1_xxreal_0 X1 X2) \vee (X2 \in X0)))))) \Rightarrow (v6_xxreal_2 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v2_membered X1) \Rightarrow ((X0 \in X1) \Rightarrow (r1_xxreal_0 X0 (k1_xxreal_2 X1)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2.(v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow (r1_xxreal_0 X0 X2)))) \quad (3)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (v1_xxreal_0 (k1_xxreal_2 X0)) \quad (4)$$

Theorem 1

$$\forall X0.(v2_membered X0) \Rightarrow ((\forall X1.(v1_xxreal_0 X1) \Rightarrow (\neg(\neg(r1_xxreal_0 X1 (k2_xxreal_2 X0)) \wedge (\neg(r1_xxreal_0 (k1_xxreal_2 X0) X1) \wedge (\neg X1 \in X0)))))) \Rightarrow (v6_xxreal_2 X0))$$