

t31_int_1

(TMLKD9816qtVfzG66gHHt1LVA29BmDxSgnt)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_int_1 : \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k3_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((k2_int_1 X0 = X0) \Leftrightarrow (v1_int_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_int_1 (k2_int_1 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow ((X1 = k2_int_1 X0) \Leftrightarrow ((r1_xxreal_0 X0 X1) \wedge (\neg r1_xxreal_0 (k3_real_1 X0 np_1) X1)))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (v1_xreal_0 X0) \quad (5)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((\neg(\neg r1_xxreal_0 (k2_int_1 X0) X0) \wedge (v1_int_1 X0)) \wedge (\neg(\neg v1_int_1 X0) \wedge (r1_xxreal_0 (k2_int_1 X0) X0)))$$