

t73_xxreal_2

(TMZWVkJVookuh7Xm3UR8Kpvxbpp9T15LpPZn)

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Let $v2_membered : \iota \Rightarrow o$ be given. Let $v4_xxreal_2 : \iota \Rightarrow o$ be given. Let $k1_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $k1_xxreal_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_xxreal_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k2_xxreal_0 : \iota$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_ordinal1 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v2_membered X0) \wedge (\neg v1_xboole_0 X0)) \Rightarrow ((\neg \forall X1. \\ (m1_xxreal_2 X1 X0) \Rightarrow (X1 = k1_xxreal_0)) \Rightarrow (v4_xxreal_2 X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ (v1_xxreal_0 X2) \Rightarrow ((X0 \in k4_xxreal_1 X1 X2) \Leftrightarrow ((\neg r1_xxreal_0 X0 X1) \wedge \\ (\neg r1_xxreal_0 X2 X0))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((r1_xxreal_0 k1_xxreal_0 X0) \Rightarrow (X0 = k1_xxreal_0)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (r1_xxreal_0 X0 k1_xxreal_0) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((X1 \in k4_xxreal_1 X0 k1_xxreal_0) \Leftrightarrow (\neg r1_xxreal_0 X1 X0))) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\neg (X0 \in k1_numbers) \wedge (r1_xxreal_0 X0 k2_xxreal_0)) \quad (6)$$

Assume the following.

$$\begin{aligned} \exists X0.(v1_xxreal_0 X0) \wedge ((\neg v3_xxreal_0 X0) \wedge ((\neg v1_xboole_0 \\ X0) \wedge ((v1_ordinal1 X0) \wedge ((v2_ordinal1 X0) \wedge ((v3_ordinal1 X0) \wedge \\ ((v7_ordinal1 X0) \wedge ((v1_xcmplx_0 X0) \wedge ((v1_xreal_0 X0) \wedge ((v1_int_1 \\ X0) \wedge (\neg v1_int_2 X0)))))))))) \end{aligned} \quad (7)$$

Assume the following.

$$v1_xxreal_0 k2_xxreal_0 \quad (8)$$

Assume the following.

$$v1_xxreal_0 k1_xxreal_0 \quad (9)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(m1_xxreal_2 X1 X0) \Rightarrow (v1_xxreal_0 X1)) \quad (10)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (v1_xxreal_0 (k1_xxreal_2 X0)) \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ X1 = k1_xxreal_2 X0) \Leftrightarrow ((m1_xxreal_2 X1 X0) \wedge (\forall X2.(m1_xxreal_2 \\ X2 X0) \Rightarrow (r1_xxreal_0 X1 X2)))))) \end{aligned} \quad (12)$$

Assume the following.

$$k1_xxreal_0 = k1_numbers \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ m1_xxreal_2 X1 X0) \Leftrightarrow (\forall X2.(v1_xxreal_0 X2) \Rightarrow ((X2 \in X0) \Rightarrow (r1_xxreal_0 \\ X2 X1)))))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Leftrightarrow (X0 \in k1_numbers) \quad (15)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Leftrightarrow (\forall X1.\neg X1 \in X0) \quad (16)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow ((v4_xxreal_2 X0) \Leftrightarrow (\exists X1.(v1_xreal_0 X1) \wedge (m1_xxreal_2 X1 X0))) \quad (17)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (18)$$

Theorem 1

$$\forall X0.(v2_membered\ X0) \Rightarrow ((v4_xreal_2\ X0) \Leftrightarrow (k1_xreal_2\ X0 \neq k1_xreal_0))$$