

t101_xxreal_3
(TMQs9upBbsoR6b7jujEP1bMTud61Hucui3j)

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Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k4_xxreal_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xxreal_3 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (k2_xxreal_3 (k4_xxreal_3 X0 X1) = k4_xxreal_3 (k2_xxreal_3 X0) X1)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2.(v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 k6_numbers X2)) \Rightarrow (r1_xxreal_0 (k4_xxreal_3 X0 X2) (k4_xxreal_3 X1 X2)))))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Leftrightarrow (r1_xxreal_0 (k2_xxreal_3 X1) (k2_xxreal_3 X0)))) \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0) \wedge (v1_xxreal_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_xboole_0 X0) \wedge (v1_xxreal_0 X0)) \wedge (v1_xxreal_0 X1)) \Rightarrow ((v1_xboole_0 (k4_xxreal_3 X0 X1)) \wedge (v1_xxreal_0 (k4_xxreal_3 X0 X1))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(v1_xxreal_0 (k4_xxreal_3 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0)\Rightarrow(v1_xxreal_0 (k2_xxreal_3 X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(k4_xxreal_3 X0 X1 = k4_xxreal_3 X1 X0) \quad (10)$$

Theorem 1

$$\forall X0.(v1_xxreal_0 X0)\Rightarrow(\forall X1.(v1_xxreal_0 X1)\Rightarrow(\forall X2.(v1_xxreal_0 X2)\Rightarrow(((r1_xxreal_0 X0 X1)\wedge(r1_xxreal_0 X2 k6_numbers))\Rightarrow(r1_xxreal_0 (k4_xxreal_3 X1 X2) (k4_xxreal_3 X0 X2))))))$$