

t1_lp_space
(TMMU5tMuW7vd1mEmV5fM1wd36nR5dFP2zp2)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k4_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k3_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k9_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k4_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge ((\neg r1_xxreal_0 \\ & X1 X0) \wedge ((\neg r1_xxreal_0 X2 k6_numbers) \wedge (r1_xxreal_0 (k3_power \\ & X1 X2) (k3_power X0 X2))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge (r1_xxreal_0 (k3_power X0 X1) k6_numbers))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (4)$$

Assume the following.

$$(m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \quad (5)$$

Assume the following.

$$v1_xboole_0 np_0 \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(m1_subset_1 X1 k1_numbers))\Rightarrow(k4_power X0 X1 = k3_power X0 X1) \quad (8)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0)\wedge(v1_xxreal_0 X0) \quad (9)$$

Assume the following.

$$\begin{aligned} &\forall X0.(v1_xxreal_0 X0)\Rightarrow(\forall X1.(v1_xxreal_0 X1)\Rightarrow(\forall X2. \\ &(v1_xxreal_0 X2)\Rightarrow(((\neg r1_xxreal_0 X0 k6_numbers)\Rightarrow((X2 = k3_power \\ &X0 X1)\Leftrightarrow(X2 = k9_prepower X0 X1))))\wedge(((X0 = k6_numbers)\Rightarrow((r1_xxreal_0 \\ &X1 k6_numbers)\vee((X2 = k3_power X0 X1)\Leftrightarrow(X2 = k6_numbers))))\wedge((v1_int_1 \\ &X1)\Rightarrow((X2 = k3_power X0 X1)\Leftrightarrow(\exists X3.(v1_int_1 X3)\wedge((X3 = X1)\wedge \\ &(X2 = k4_prepower X0 X3)))))))))) \end{aligned} \quad (10)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xxreal_0 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} &\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(\forall X1.(m1_subset_1 \\ &X1 k1_numbers)\Rightarrow(\forall X2.(m1_subset_1 X2 k1_numbers)\Rightarrow(\neg(r1_xxreal_0 \\ &k6_numbers X0)\wedge((\neg r1_xxreal_0 X1 X0)\wedge((\neg r1_xxreal_0 X2 k6_numbers)\wedge \\ &(r1_xxreal_0 (k4_power X1 X2) (k4_power X0 X2))))))) \end{aligned}$$