

t17_lpspace2 (TMRgRWRNocPVLL- CeZw7SVD83NUnXu8DhL1c)

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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 $k3_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xxreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow ((\neg r1_xxreal_0 X0 k6_numbers) \Rightarrow \\ (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 \\ X2 k1_numbers) \Rightarrow ((r1_xxreal_0 k6_numbers X1) \wedge (r1_xxreal_0 X1 \\ X2)) \Rightarrow (r1_xxreal_0 (k4_power X1 X0) (k4_power X2 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers) \wedge (m1_subset_1 X1 k1_numbers)) \Rightarrow (k4_power X0 X1 = k3_power X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((r1_xxreal_0 k6_numbers X0) \Rightarrow ((r1_xxreal_0 X1 k6_numbers) \vee (r1_xxreal_0 k6_numbers (k4_power X0 X1)))))) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 k1_numbers) \Rightarrow (((r1_xxreal_0 k6_numbers X0) \wedge (r1_xxreal_0 k6_numbers X1)) \Rightarrow ((r1_xxreal_0 X2 k7_real_1 X0 X1) \vee ((\neg r1_xxreal_0 X2 X0) \wedge (\neg r1_xxreal_0 X2 X1)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(m1_subset_1 X1 k1_numbers))\Rightarrow(m1_subset_1 (k4_power X0 X1) k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0)\Rightarrow(\forall X1.(v1_xxreal_0 X1)\Rightarrow((r1_xxreal_0 X1 X0)\Rightarrow(k4_xxreal_0 X0 X1 = X0))\wedge((\neg r1_xxreal_0 X1 X0)\Rightarrow(k4_xxreal_0 X0 X1 = X1)))) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (9)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(\forall X1.(m1_subset_1 X1 k1_numbers)\Rightarrow(\forall X2.(m1_subset_1 X2 k1_numbers)\Rightarrow(((r1_xxreal_0 k6_numbers X0)\wedge(r1_xxreal_0 k6_numbers X1))\Rightarrow((r1_xxreal_0 X2 k6_numbers)\vee(r1_xxreal_0 (k3_power (k4_xxreal_0 X0 X1) X2) (k7_real_1 (k4_power X0 X2) (k4_power X1 X2))))))))$$