

l124_xxreal_3 (TM-
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Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_xxreal_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xxreal_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xxreal_0 : \iota$ be given. Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (k4_xxreal_3 np_2 X0 = k1_xxreal_3 X0 X0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ (v1_xxreal_0 X2) \Rightarrow (k4_xxreal_3 X0 (k4_xxreal_3 X1 X2) = k4_xxreal_3 \\ (k4_xxreal_3 X0 X1) X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (v1_xxreal_0 (k4_xxreal_3 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (v1_xxreal_0 (k1_xxreal_3 X0 X1)) \quad (5)$$

Assume the following.

$$k1_xxreal_0 = k1_numbers \quad (6)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xxreal_0 X0) \quad (8)$$

Theorem 1

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (k4_xxreal_3 X0 (k1_xxreal_3 X1 X1) = k1_xxreal_3 (k4_xxreal_3 X0 X1) (k4_xxreal_3 X0 X1)))$$