

t79_member_1

(TMP6UxpZKamShhQgoisAG14eZ5edLizBv4D)

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Let $v2_membered : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_xxreal_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_numbers : \iota$ be given. Let $k3_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k7_numbers) \wedge (m1_subset_1 X1 k7_numbers)) \Rightarrow (k3_member_1 X0 X1 = k4_xxreal_3 X0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (v2_membered X0) \Rightarrow (\forall X1. (v2_membered X1) \Rightarrow (k12_member_1 \\ X0 X1 = ReplSep2 (toset (\lambda X2 : \iota. m1_subset_1 X2 k7_numbers)) \\ (\lambda X2 : \iota. toset (\lambda X3 : \iota. m1_subset_1 X3 k7_numbers)) (\\ \lambda X2 : \iota. \lambda X3 : \iota. (X2 \in X0) \wedge (X3 \in X1)) (\lambda X2 : \iota. \lambda X3 : \\ \iota. k3_member_1 X2 X3))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Leftrightarrow (X0 \in k7_numbers) \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0. (v2_membered X0) \Rightarrow (\forall X1. (v2_membered X1) \Rightarrow (\forall X2. \\ (v1_xxreal_0 X2) \Rightarrow (\forall X3. (v1_xxreal_0 X3) \Rightarrow (((X2 \in X0) \wedge (X3 \in \\ X1)) \Rightarrow (k4_xxreal_3 X2 X3 \in k12_member_1 X0 X1)))))) \end{aligned}$$