

t111_seq_4
(TMXVP1g4DvDBourLMVHPCK5d8PfnESTBZ6c)

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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 $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $k14_seq_4 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k23_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k22_seq_4 : \iota \Rightarrow \iota$ be given. Let $k19_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k2_numbers (k14_seq_4 X0)) \Rightarrow (\forall X2.(m2_finseq_2 \\ & X2 k2_numbers (k14_seq_4 X0)) \Rightarrow ((k22_seq_4 (k19_seq_4 X0 X1 X2) = \\ & k6_numbers) \Leftrightarrow (X1 = X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k2_numbers (k14_seq_4 X0)) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 k1_numbers) \Rightarrow (k23_seq_4 X0 X1 X2 = ReplSep (toset (\lambda X3 : \iota. \\ & m2_finseq_2 X3 k2_numbers (k14_seq_4 X0)))) (\lambda X3 : \iota. \neg r1_xxreal_0 \\ & X2 (k22_seq_4 (k19_seq_4 X0 X3 X1)))) (\lambda X3 : \iota. X3)))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 k1_numbers) \Rightarrow (\forall X2.(m2_finseq_2 X2 k2_numbers \\ & (k14_seq_4 X0)) \Rightarrow ((\neg r1_xxreal_0 X1 k6_numbers) \Rightarrow (X2 \in k23_seq_4 \\ & X0 X2 X1)))) \end{aligned}$$