

t80_seq_4

(TMVTo3qXwbUdi7KQX9um1iGh5VAY4ifgz6U)

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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 $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $k14_seq_4 : \iota \Rightarrow \iota$ be given. Let $k15_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_seq_4 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k2_numbers (k14_seq_4 X0)) \Rightarrow (\forall X2.(m2_finseq_2 \\ & X2 k2_numbers (k14_seq_4 X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k2_numbers \\ & (k14_seq_4 X0)) \Rightarrow (k15_seq_4 X0 (k19_seq_4 X0 X1 X2) X3 = k19_seq_4 \\ & X0 (k15_seq_4 X0 X1 X3) X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k2_numbers (k14_seq_4 X0)) \Rightarrow (\forall X2.(m2_finseq_2 \\ & X2 k2_numbers (k14_seq_4 X0)) \Rightarrow (\forall X3.(m2_finseq_2 X3 k2_numbers \\ & (k14_seq_4 X0)) \Rightarrow (k15_seq_4 X0 X1 (k19_seq_4 X0 X2 X3) = k19_seq_4 \\ & X0 (k15_seq_4 X0 X1 X2) X3)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k2_numbers (k14_seq_4 X0)) \Rightarrow (k19_seq_4 X0 X1 X1 = \\ & k17_seq_4 X0)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k2_numbers (k14_seq_4 X0)) \Rightarrow ((k15_seq_4 X0 X1 (\\ & k17_seq_4 X0) = X1) \wedge (X1 = k15_seq_4 X0 (k17_seq_4 X0) X1))) \end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_finseq_2 X1 k2_numbers (k14_seq_4 X0)) \Rightarrow (\forall X2.(m2_finseq_2 \\ & X2 k2_numbers (k14_seq_4 X0)) \Rightarrow (k15_seq_4 X0 X1 (k19_seq_4 X0 X2 \\ & X1 = X2)))) \end{aligned}$$