

t12_group_4 (TMbXGbMHt- eDGegpa5R6MV4AEUdtbUPeN1RQ)

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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 $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_group_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_group_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_group_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0 : \iota \Rightarrow o. ((X0 \ k6_numbers) \wedge (\forall X1. (m2_subset_1 \\ & X1 \ k1_numbers \ k5_numbers) \Rightarrow ((X0 \ X1) \Rightarrow (X0 \ (k2_nat_1 \ X1 \ np_1)))))) \Rightarrow \\ & (\forall X1. (m2_subset_1 \ X1 \ k1_numbers \ k5_numbers) \Rightarrow (X0 \ X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 \ X0) \wedge ((v2_group_1 \ X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 \ X0)))) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2. (m2_subset_1 \ X2 \ k1_numbers \ k5_numbers) \Rightarrow ((k3_group_4 \\ & X0 \ (k5_finseq_2 \ (u1_struct_0 \ X0) \ X2 \ X1) = k5_group_1 \ X0 \ X2 \ X1) \Rightarrow (k3_group_4 \\ & X0 \ (k5_finseq_2 \ (u1_struct_0 \ X0) \ (k2_nat_1 \ X2 \ np_1) \ X1) = k5_group_1 \\ & X0 \ (k2_nat_1 \ X2 \ np_1) \ X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 \ X0) \wedge ((v2_group_1 \ X0) \wedge ((v3_group_1 \\ & X0) \wedge (l3_algstr_0 \ X0)))) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (u1_struct_0 \\ & X0)) \Rightarrow (k3_group_4 \ X0 \ (k5_finseq_2 \ (u1_struct_0 \ X0) \ k6_numbers \\ & X1) = k5_group_1 \ X0 \ k6_numbers \ X1)) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m2_subset_1 \ X0 \ k1_numbers \ k5_numbers) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 \ X1) \wedge ((v2_group_1 \ X1) \wedge ((v3_group_1 \ X1) \wedge (l3_algstr_0 \\ & X1)))) \Rightarrow (\forall X2. (m1_subset_1 \ X2 \ (u1_struct_0 \ X1)) \Rightarrow (k3_group_4 \\ & X1 \ (k5_finseq_2 \ (u1_struct_0 \ X1) \ X0 \ X2) = k5_group_1 \ X1 \ X0 \ X2))) \end{aligned}$$