

117_pre_ff (TMJvNr- WePvLB6MH5EnhaJn2rN1kbgPLtRhe)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k4_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_abian : \iota \Rightarrow o$ 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 $k4_ordinal1 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow & ((\neg(\neg v1_abian X0) \wedge (\forall X1.(\\ m1_subset_1 X1 k5_numbers) \Rightarrow & (X0 \neq k2_nat_1 (k4_nat_1 np_2 X1) np_1))) \wedge \\ (\neg(\exists X1.(m1_subset_1 X1 k5_numbers) \wedge & (X0 = k2_nat_1 (k4_nat_1 \\ np_2 X1) np_1))) \wedge (v1_abian X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (2)$$

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.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (m1_subset_1 X1 k5_numbers)) \Rightarrow (k1_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v7_ordinal1 (k2_xcmplx_0 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow ((v1_abian X0) \Leftrightarrow (\exists X1. (m1_subset_1 X1 k5_numbers) \wedge (X0 = k4_nat_1 np_2 X1))) \quad (7)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Leftrightarrow (X0 \in k4_ordinal1) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m2_finseq_2 X1 k5_numbers \\ & (k3_finseq_2 k5_numbers) \Rightarrow (\forall X2.(m2_finseq_2 X2 k5_numbers \\ & (k3_finseq_2 k5_numbers) \Rightarrow (\forall X3.(m2_finseq_2 X3 k5_numbers \\ & (k3_finseq_2 k5_numbers) \Rightarrow (((\forall X4.(m1_subset_1 X4 k5_numbers) \Rightarrow \\ & ((k1_nat_1 X0 np_2 = k4_nat_1 np_2 X4) \Rightarrow (X2 = k8_finseq_1 k5_numbers \\ & X1 (k12_finseq_1 k5_numbers (k7_partfun1 k5_numbers X1 X4)))))) \wedge \\ & (\forall X4.(m1_subset_1 X4 k5_numbers) \Rightarrow ((k1_nat_1 X0 np_2 = \\ & k2_nat_1 (k4_nat_1 np_2 X4) np_1) \Rightarrow (X2 = k8_finseq_1 k5_numbers \\ & X1 (k12_finseq_1 k5_numbers (k2_nat_1 (k7_partfun1 k5_numbers \\ & X1 X4) (k7_partfun1 k5_numbers X1 (k2_nat_1 X4 np_1)))))) \wedge \\ & (\forall X4.(m1_subset_1 X4 k5_numbers) \Rightarrow ((k1_nat_1 X0 np_2 = \\ & k4_nat_1 np_2 X4) \Rightarrow (X3 = k8_finseq_1 k5_numbers X1 (k12_finseq_1 \\ & k5_numbers (k7_partfun1 k5_numbers X1 X4)))))) \wedge (\forall X4.(m1_subset_1 \\ & X4 k5_numbers) \Rightarrow ((k1_nat_1 X0 np_2 = k2_nat_1 (k4_nat_1 np_2 X4) \\ & np_1) \Rightarrow (X3 = k8_finseq_1 k5_numbers X1 (k12_finseq_1 k5_numbers \\ & (k2_nat_1 (k7_partfun1 k5_numbers X1 X4) (k7_partfun1 k5_numbers \\ & X1 (k2_nat_1 X4 np_1)))))) \Rightarrow (X2 = X3)))))) \end{aligned}$$