

t117_finseq_2

(TMZdQU6pW2CFodWXWwnRzu33K2UYN6WTscP)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((v3_card_1 X1 np_1) \wedge \\ & (m2_finseq_1 X1 X0)) \Rightarrow (\exists X2.(m1_subset_1 X2 X0) \wedge (X1 = k12_finseq_1 \\ & X0 X2))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (\neg v1_xboole_0 X2) \Rightarrow (\forall X3.((v3_card_1 X3 (k2_xcmplx_0 X0 \\ & X1)) \wedge (m2_finseq_1 X3 X2)) \Rightarrow (\exists X4.(m2_finseq_2 X4 X2 (k4_finseq_2 \\ & X0 X2)) \wedge (\exists X5.(m2_finseq_2 X5 X2 (k4_finseq_2 X1 X2)) \wedge (X3 = \\ & k8_finseq_1 X2 X4 X5)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \tag{4}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(m1_subset_1\ X1\ k5_numbers))\Rightarrow (k1_nat_1\ X0\ X1 = k2_xcmplx_0\ X0\ X1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2\ X1\ X0)\Rightarrow(\forall X2.(m2_finseq_2\ X2\ X0\ X1)\Rightarrow(m2_finseq_1\ X2\ X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1\ X0)\Rightarrow(m1_finseq_2\ (k4_finseq_2\ X0\ X1)\ X1) \quad (8)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge(v7_ordinal1\ X1))\Rightarrow (\forall X2.(m1_subset_1\ X2\ (k4_finseq_2\ X1\ X0))\Rightarrow(v3_card_1\ X2\ X1)) \quad (10)$$

Theorem 1

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.(\neg v1_xboole_0\ X1)\Rightarrow(\forall X2.((v3_card_1\ X2\ (k1_nat_1\ X0\ np_1))\wedge(m2_finseq_1\ X2\ X1))\Rightarrow(\exists X3.(m2_finseq_2\ X3\ X1\ (k4_finseq_2\ X0\ X1))\wedge(\exists X4.(m1_subset_1\ X4\ X1)\wedge(X2 = k8_finseq_1\ X1\ X3\ (k12_finseq_1\ X1\ X4))))))$$