

t5_genealg1

(TMXWyuex8uNGXxiB7wnxgi6zbtDexVCbryu)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $m1_genealg1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k7_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k16_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_rfinseq : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_genealg1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k17_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_card_3 : \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(v1_xboole_0 X0) \wedge ((X0 \neq X1) \wedge (v1_xboole_0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((r1_xxreal_0 (k3_finseq_1 X1) X0) \Rightarrow (k16_finseq_1 X0 X1 = X1))) \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((k7_finseq_1 X0 k1_xboole_0 = X0) \wedge (k7_finseq_1 k1_xboole_0 X0 = X0)) \quad (3)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. \forall X2. (m2_finseq_1 X2 X1) \Rightarrow ((r1_xxreal_0 (k3_finseq_1 X2) X0) \Rightarrow (v1_xboole_0 (k2_rfinseq X1 X0 X2)))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Leftrightarrow(m1_finseq_1 X1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_finseq_1 X1 X0)\wedge(m1_finseq_1 X2 X0))\Rightarrow(k8_finseq_1 X0 X1 X2 = k7_finseq_1 X1 X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1_xboole_0 X0)\wedge((v1_relat_1 X0)\wedge((v2_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finseq_1 X0))))\wedge((m1_genealg1 X1 X0)\wedge((m1_genealg1 X2 X0)\wedge(m1_subset_1 X3 k5_numbers))))\Rightarrow(k7_genealg1 X0 X1 X2 X3 = k1_genealg1 X0 X1 X2 X3) \quad (7)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X1)\wedge(m1_finseq_1 X2 X0))\Rightarrow(k17_finseq_1 X0 X1 X2 = k16_finseq_1 X1 X2) \quad (9)$$

Assume the following.

$$\exists X0.v1_xboole_0 X0 \quad (10)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge((v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (12)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0)\wedge((v1_relat_1 X0)\wedge((v2_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finseq_1 X0))))))\Rightarrow(\forall X1.(m1_genealg1 X1 X0)\Rightarrow(m2_finseq_1 X1 (k3_card_3 X0))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 X1))) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v7_ordinal1 X1)\wedge(m1_finseq_1 X2 X0))\Rightarrow(m2_finseq_1 (k2_rfinseq X0 X1 X2) X0) \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_relat_1 X0) \wedge ((v2_relat_1 \\ & X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0)))))) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 (k3_card_3 X0)) \Rightarrow (\forall X2.(m2_finseq_1 X2 (k3_card_3 X0)) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 k5_numbers) \Rightarrow (k1_genealg1 X0 X1 X2 \\ & X3 = k8_finseq_1 (k3_card_3 X0) (k17_finseq_1 (k3_card_3 X0) X3 \\ & X1) (k2_rfinseq (k3_card_3 X0) X3 X2)))))) \end{aligned} \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_relat_1 X0) \wedge ((v2_relat_1 \\ & X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0)))))) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 (k3_card_3 X0)) \Rightarrow ((m1_genealg1 X1 X0) \Leftrightarrow ((k3_finseq_1 X1 = k3_finseq_1 \\ & X0) \wedge (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow ((X2 \in k4_finseq_1 \\ & X1) \Rightarrow (k1_funct_1 X1 X2 \in k1_funct_1 X0 X2)))))) \end{aligned} \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (18)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v1_xboole_0 \\ & X1) \wedge ((v1_relat_1 X1) \wedge ((v2_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ & X1)))))) \Rightarrow (\forall X2.(m1_genealg1 X2 X1) \Rightarrow (\forall X3.(m1_genealg1 \\ & X3 X1) \Rightarrow ((r1_xreal_0 (k3_finseq_1 X2) X0) \Rightarrow (k7_genealg1 X1 X2 X3 \\ & X0 = X2)))))) \end{aligned}$$