

t3_polynom4 (TMLZpBMEEKKEEAFENuE- QFFnzFyvUgjqbK92b)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $k1_algseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_polynom3 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $v2_finseq_1 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_algseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_algseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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.

$$\forall X0. \forall X1. \forall X2. (X1 \in X0) \Rightarrow (k1_funct_1 (k2_funcop_1 X0 X2) X1 = X2) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((v1_xboole_0 X0) \vee ((v2_xxreal_0 X1) \vee (v3_xxreal_0 X0)))))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X2 X0)) \Rightarrow (k8_funcop_1 X0 X1 X2 = k2_funcop_1 X1 X2) \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0) \Rightarrow (\exists X1.(v1_relat_1\ X1) \wedge ((v4_relat_1 \\ X1\ k5_numbers) \wedge ((v1_funct_1\ X1) \wedge ((v1_finset_1\ X1) \wedge ((v3_card_1 \\ X1\ X0) \wedge ((v1_finseq_1\ X1) \wedge (v2_finseq_1\ X1))))))) \end{aligned} \quad (7)$$

Assume the following.

$$\exists X0.(v1_xboole_0\ X0) \wedge ((v1_xcmplx_0\ X0) \wedge ((v1_xxreal_0 \\ X0) \wedge (v1_xreal_0\ X0))) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0) \wedge (l2_struct_0\ X0)) \Rightarrow ((v1_funct_1 \\ (k9_polynom3\ X0)) \wedge ((v1_funct_2\ (k9_polynom3\ X0)\ k5_numbers\ (\\ u1_struct_0\ X0)) \wedge (v1_algseq_1\ (k9_polynom3\ X0)\ X0))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0\ X0) \wedge (l1_struct_0\ X0)) \Rightarrow (\neg v1_xboole_0 \\ (u1_struct_0\ X0)) \quad (10)$$

Assume the following.

$$v1_xboole_0\ k1_xboole_0 \quad (11)$$

Assume the following.

$$\forall X0.(l2_struct_0\ X0) \Rightarrow (l1_struct_0\ X0) \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0) \wedge (l2_struct_0\ X0)) \Rightarrow ((v1_funct_1 \\ (k9_polynom3\ X0)) \wedge ((v1_funct_2\ (k9_polynom3\ X0)\ k5_numbers\ (\\ u1_struct_0\ X0)) \wedge (m1_subset_1\ (k9_polynom3\ X0)\ (k1_zfmisc_1 \\ (k2_zfmisc_1\ k5_numbers\ (u1_struct_0\ X0)))))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.(l2_struct_0\ X0) \Rightarrow (m1_subset_1\ (k4_struct_0\ X0)\ (u1_struct_0 \\ X0)) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l2_struct_0 X0)) \wedge \\ & ((v1_funct_1 X1) \wedge (v1_funct_2 X1 k5_numbers (u1_struct_0 X0)) \wedge \\ & ((v1_algseq_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (u1_struct_0 X0)))))) \Rightarrow (m1_subset_1 (k1_algseq_1 \\ & X0 X1) k5_numbers) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l2_struct_0 X0)) \Rightarrow (k9_polynom3 \\ & X0 = k8_funcop_1 (u1_struct_0 X0) k5_numbers (k4_struct_0 X0)) \end{aligned} \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l2_struct_0 X0)) \Rightarrow (\forall X1. \\ & ((v1_funct_1 X1) \wedge (v1_funct_2 X1 k5_numbers (u1_struct_0 X0)) \wedge \\ & ((v1_algseq_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (u1_struct_0 X0)))))) \Rightarrow (\forall X2. (m1_subset_1 \\ & X2 k5_numbers) \Rightarrow ((X2 = k1_algseq_1 X0 X1) \Leftrightarrow ((r1_algseq_1 X0 X1 X2) \wedge \\ & (\forall X3. (v7_ordinal1 X3) \Rightarrow ((r1_algseq_1 X0 X1 X3) \Rightarrow (r1_xreal_0 \\ & X2 X3)))))) \end{aligned} \quad (17)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l2_struct_0 X0)) \Rightarrow (\forall X1. \\ & ((v1_funct_1 X1) \wedge (v1_funct_2 X1 k5_numbers (u1_struct_0 X0)) \wedge \\ & ((v1_algseq_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers (u1_struct_0 X0)))))) \Rightarrow (\forall X2. (v7_ordinal1 \\ & X2) \Rightarrow ((r1_algseq_1 X0 X1 X2) \Leftrightarrow (\forall X3. (v7_ordinal1 X3) \Rightarrow ((r1_xreal_0 \\ & X2 X3) \Rightarrow (k1_funct_1 X1 X3 = k4_struct_0 X0)))))) \end{aligned} \quad (18)$$

Assume the following.

$$\forall X0. (v7_ordinal1 X0) \Leftrightarrow (X0 \in k4_ordinal1) \quad (19)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (20)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (v7_ordinal1 X0) \quad (21)$$

Assume the following.

$$\forall X0. (v3_card_1 X0 k1_xboole_0) \Rightarrow (v1_xboole_0 X0) \quad (22)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_xreal_0 X0) \wedge (v2_xreal_0 X0)) \Rightarrow ((\neg v1_xboole_0 \\ & X0) \wedge ((v1_xreal_0 X0) \wedge (\neg v3_xreal_0 X0))) \end{aligned} \quad (23)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xreal_0 X0) \quad (24)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\neg v3_xxreal_0 X0) \quad (25)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l2_struct_0 X0)) \Rightarrow (k1_algseq_1 X0 (k9_polynom3 X0) = k6_numbers)$$