

t21_polynom4

(TMSe7vhVukHqrLenqFyNevyoPVvomj3hkxQ)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v1_group_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_algseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_polynom4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_normsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_vfunct_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_vectsp_1 : \iota \Rightarrow o$ be given. Let $k8_polynom3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $k2_normsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $k1_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_vectsp_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_group_1 X0) \wedge \\
& (v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))) \Rightarrow (\forall X1. ((v1_funct_1 \\
& X1) \wedge ((v1_funct_2 X1 k5_numbers (u1_struct_0 X0)) \wedge ((v1_algseq_1 \\
& X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (\\
& u1_struct_0 X0)))))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\
& X0)) \Rightarrow (k2_polynom4 X0 (k5_vfunct_1 k5_numbers X0 X1) X2 = k4_algstr_0 \\
& X0 (k2_polynom4 X0 X1 X2))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_group_1 X0) \wedge (\\
& (v2_vectsp_1 X0) \wedge (l6_algstr_0 X0))))))) \Rightarrow (\forall X1.((v1_funct_1 \\
& X1) \wedge ((v1_funct_2 X1 k5_numbers (u1_struct_0 X0)) \wedge ((v1_algseq_1 \\
& X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (\\
& u1_struct_0 X0)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\
& X2 k5_numbers (u1_struct_0 X0)) \wedge ((v1_algseq_1 X2 X0) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 X0)))))) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (k2_polynom4 X0 \\
& (k8_polynom3 X0 X1 X2) X3 = k3_rlvect_1 X0 (k2_polynom4 X0 X1 X3) (\\
& k2_polynom4 X0 X2 X3))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge (l2_algstr_0 X0))) \wedge (((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers \\
& (u1_struct_0 X0)) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& k5_numbers (u1_struct_0 X0)))))) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 \\
& X2 k5_numbers (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 k5_numbers (u1_struct_0 X0))))))))) \Rightarrow (k8_polynom3 \\
& X0 X1 X2 = k2_normsp_1 X0 X1 X2)
\end{aligned} \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((v2_rlvect_1 X0) \wedge (l1_algstr_0 \\
& X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 \\
& X0)))) \Rightarrow (k3_rlvect_1 X0 X1 X2 = k1_algstr_0 X0 X1 X2)
\end{aligned} \tag{5}$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v1_xboole_0 X0) \wedge (((\neg v2_struct_0 \\
& X1) \wedge (l2_algstr_0 X1)) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 (u1_struct_0 \\
& X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 (u1_struct_0 \\
& X1))))))))) \Rightarrow ((v1_funct_1 (k5_vfunct_1 X0 X1 X2)) \wedge (v1_partfun1 \\
& (k5_vfunct_1 X0 X1 X2) X0))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (&((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge \\ &((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l2_algstr_0 X0)))))) \wedge (\\ &(v1_funct_1 X1) \wedge ((v1_funct_2 X1 \ k5_numbers \ (u1_struct_0 X0)) \wedge \\ &((v1_algseq_1 X1 \ X0) \wedge (m1_subset_1 X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ &k5_numbers \ (u1_struct_0 X0))))))) \Rightarrow ((v1_funct_1 \ (k5_vfunct_1 \\ &k5_numbers \ X0 \ X1)) \wedge (v1_algseq_1 \ (k5_vfunct_1 \ k5_numbers \ X0 \ X1) \\ &X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. (l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (9)$$

Assume the following.

$$\forall X0. (l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (&((\neg v1_xboole_0 X0) \wedge (((\neg v2_struct_0 \\ X1) \wedge (l2_algstr_0 X1)) \wedge ((v1_funct_1 X2) \wedge (m1_subset_1 X2 \ (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 \ (u1_struct_0 X1))))))) \Rightarrow ((v1_funct_1 \ (k5_vfunct_1 \\ X0 \ X1 \ X2)) \wedge (m1_subset_1 \ (k5_vfunct_1 \ X0 \ X1 \ X2) \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ X0 \ (u1_struct_0 X1)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (&((\neg v2_struct_0 X0) \wedge ((v1_group_1 \\ X0) \wedge (l6_algstr_0 X0))) \wedge (((v1_funct_1 X1) \wedge ((v1_funct_2 X1 \ k5_numbers \\ (u1_struct_0 X0)) \wedge ((v1_algseq_1 X1 \ X0) \wedge (m1_subset_1 X1 \ (k1_zfmisc_1 \\ (k2_zfmisc_1 \ k5_numbers \ (u1_struct_0 X0)))))) \wedge (m1_subset_1 \\ X2 \ (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 \ (k2_polynom4 \ X0 \ X1 \ X2) \ (u1_struct_0 \\ X0)) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0. (&((\neg v2_struct_0 X0) \wedge (l2_algstr_0 X0)) \Rightarrow (\forall X1. \\ &((v1_funct_1 X1) \wedge ((v1_funct_2 X1 \ k5_numbers \ (u1_struct_0 X0)) \wedge \\ &(m1_subset_1 X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \ (u1_struct_0 \\ X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 \ k5_numbers \\ (u1_struct_0 X0)) \wedge (m1_subset_1 X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ k5_numbers \ (u1_struct_0 X0)))))) \Rightarrow (k3_normsp_1 \ X0 \ X1 \ X2 = k2_normsp_1 \\ X0 \ X1 \ (k5_vfunct_1 \ k5_numbers \ X0 \ X2)))) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0. (l2_algstr_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 \ (u1_struct_0 \\ X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \ (u1_struct_0 X0)) \Rightarrow (k5_algstr_0 \\ X0 \ X1 \ X2 = k1_algstr_0 X0 \ X1 \ (k4_algstr_0 X0 \ X2)))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge (v5_vectsp_1 X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v1_vectsp_1 X0) \wedge (v2_vectsp_1 X0)))) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((v1_partfun1 X2 X0) \Rightarrow (v1_funct_2 X2 X0 X1)) \quad (16)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers (u1_struct_0 X0)) \wedge ((v1_algseq_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 X0)))))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers (u1_struct_0 X0)) \wedge ((v1_algseq_1 X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (u1_struct_0 X0)))))))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (k2_polynom4 X0 (k3_normsp_1 X0 X1 X2) X3 = k5_algstr_0 X0 (k2_polynom4 X0 X1 X3) (k2_polynom4 X0 X2 X3)))))) \end{aligned}$$