

t31_polynom8 (TMPMqpTitiMjrAxD- KAYvZNkZFvx7zRDxB4t)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_polynom8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_vectsp_1 : \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_binom : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_vectsp_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ &X0) \wedge ((v1_vectsp_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\ &((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow (\forall X1. (m1_subset_1 \\ &X1 k5_numbers) \Rightarrow (\neg r1_polynom8 X0 (k4_struct_0 X0) X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v33_algstr_0 \\ &X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((\\ &v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow (\forall X1. (m1_subset_1 \\ &X1 (u1_struct_0 X0) \Rightarrow (\forall X2. (m1_subset_1 X2 k5_numbers) \Rightarrow \\ &((k2_binom X0 (k11_algstr_0 X0 X1) X2 = k5_struct_0 X0) \Rightarrow ((X1 = k4_struct_0 \\ &X0) \vee (k2_binom X0 X1 X2 = k5_struct_0 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 \\ X0) \wedge ((v5_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (\\ l6_algstr_0 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow ((k2_binom X0 X1 \\ X2 = k5_struct_0 X0) \Rightarrow ((X1 = k4_struct_0 X0) \vee (k2_binom X0 (k11_algstr_0 \\ X0 X1) X2 = k5_struct_0 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((l5_algstr_0 X0) \wedge (m1_subset_1 X1 (u1_struct_0 \\ X0))) \Rightarrow (m1_subset_1 (k11_algstr_0 X0 X1) (u1_struct_0 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v4_vectsp_1 X0) \wedge (l6_algstr_0 \\ X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ (m1_subset_1 X2 k5_numbers) \Rightarrow ((r1_polynom8 X0 X1 X2) \Leftrightarrow ((X2 \neq k6_numbers) \wedge \\ ((k2_binom X0 X1 X2 = k5_struct_0 X0) \wedge (\forall X3.(m1_subset_1 \\ X3 k5_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 X3 k6_numbers) \wedge ((\neg r1_xxreal_0 \\ X2 X3) \wedge (k2_binom X0 X1 X3 = k5_struct_0 X0)))))))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge (v5_vectsp_1 \\ X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v1_vectsp_1 X0) \wedge (v2_vectsp_1 X0)))) \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ X0) \wedge ((v33_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge (\\ (v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 \\ X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 \\ k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\\ (r1_polynom8 X0 X2 X1) \Rightarrow (r1_polynom8 X0 (k11_algstr_0 X0 X2) X1)))) \end{aligned}$$