

t39_polyred (TMXA-
jyem4yfbzJh11GC976qYBRmNm9VJKF5)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15_pre_poly : \iota \Rightarrow \iota$ be given. Let $v1_relat_2 : \iota \Rightarrow o$ be given. Let $v4_relat_2 : \iota \Rightarrow o$ be given. Let $v6_relat_2 : \iota \Rightarrow o$ be given. Let $v8_relat_2 : \iota \Rightarrow o$ 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 $v2_struct_0 : \iota \Rightarrow o$ 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 $v1_funct_1 : \iota \Rightarrow o$ 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 $v1_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v2_pre_poly : \iota \Rightarrow o$ be given. Let $r3_polyred : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_algstr_0 : \iota \Rightarrow o$

be given. Let $l4_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.((v1_partfun1\ X1\ (k15_pre_poly\ X0)) \wedge ((v1_relat_2\ X1) \wedge ((v4_relat_2\ X1) \wedge ((v6_relat_2\ X1) \wedge ((v8_relat_2\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (k15_pre_poly\ X0)))))))))) \Rightarrow (\forall X2.((\neg v7_struct_0\ X2) \wedge ((v13_algstr_0\ X2) \wedge ((v33_algstr_0\ X2) \wedge ((v3_group_1\ X2) \wedge ((v5_group_1\ X2) \wedge ((v4_vectsp_1\ X2) \wedge ((v5_vectsp_1\ X2) \wedge ((v3_rlvect_1\ X2) \wedge ((v4_rlvect_1\ X2) \wedge (l6_algstr_0\ X2)))))))))) \Rightarrow (\forall X3.((v1_funct_1\ X3) \wedge ((v1_funct_2\ X3\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X3\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1\ X3\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)))))) \Rightarrow (\forall X4.((v1_funct_1\ X4) \wedge ((v1_funct_2\ X4\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X4\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1\ X4\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)))))) \Rightarrow (\forall X5.((v1_funct_1\ X5) \wedge ((v1_funct_2\ X5\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X5\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1\ X5\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)))))) \Rightarrow (\forall X6.((v1_relat_1\ X6) \wedge ((v4_relat_1\ X6\ X0) \wedge ((v1_funct_1\ X6) \wedge ((v1_partfun1\ X6\ X0) \wedge ((v4_valued_0\ X6) \wedge (v2_pre_poly\ X6)))))) \Rightarrow (\neg(r3_polyred\ X0\ X1\ X2\ X3\ X4\ X5\ X6) \wedge (X6 \in k2_polynom1\ (k15_pre_poly\ X0)\ X2\ X5))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(l6_algstr_0\ X0) \Rightarrow ((l2_algstr_0\ X0) \wedge (l5_algstr_0\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(l5_algstr_0\ X0) \Rightarrow ((l4_algstr_0\ X0) \wedge (l4_struct_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.(l4_struct_0\ X0) \Rightarrow ((\neg v6_struct_0\ X0) \Rightarrow (\neg v7_struct_0\ X0)) \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.((v1_partfun1\ X1\ (k15_pre_poly \\
& \quad X0)) \wedge ((v1_relat_2\ X1) \wedge ((v4_relat_2\ X1) \wedge ((v6_relat_2\ X1) \wedge ((\\
& \quad v8_relat_2\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly \\
& \quad \quad X0)\ (k15_pre_poly\ X0)))))))))) \Rightarrow (\forall X2.((\neg v2_struct_0\ X2) \wedge \\
& \quad (\neg v6_struct_0\ X2) \wedge ((v13_algstr_0\ X2) \wedge ((v33_algstr_0\ X2) \wedge (\\
& \quad (v3_group_1\ X2) \wedge ((v5_group_1\ X2) \wedge ((v4_vectsp_1\ X2) \wedge ((v5_vectsp_1 \\
& \quad X2) \wedge ((v3_rlvect_1\ X2) \wedge ((v4_rlvect_1\ X2) \wedge (l6_algstr_0\ X2)))))))))) \Rightarrow \\
& \quad (\forall X3.((v1_funct_1\ X3) \wedge ((v1_funct_2\ X3\ (k15_pre_poly\ X0) \\
& \quad (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X3\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1 \\
& \quad X3\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2))))))) \Rightarrow \\
& \quad (\forall X4.((v1_funct_1\ X4) \wedge ((v1_funct_2\ X4\ (k15_pre_poly\ X0) \\
& \quad (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X4\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1 \\
& \quad X4\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2))))))) \Rightarrow \\
& \quad (\forall X5.((v1_funct_1\ X5) \wedge ((v1_funct_2\ X5\ (k15_pre_poly\ X0) \\
& \quad (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X5\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1 \\
& \quad X5\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2))))))) \Rightarrow \\
& \quad (\forall X6.((v1_relat_1\ X6) \wedge ((v4_relat_1\ X6\ X0) \wedge ((v1_funct_1 \\
& \quad X6) \wedge ((v1_partfun1\ X6\ X0) \wedge ((v4_valued_0\ X6) \wedge (v2_pre_poly\ X6)))))) \Rightarrow \\
& \quad (\neg(r3_polyred\ X0\ X1\ X2\ X3\ X4\ X5\ X6) \wedge (X6 \in k2_polynom1\ (k15_pre_poly \\
& \quad \quad X0)\ X2\ X5))))))
\end{aligned}$$