

l14_polyred (TMYN- tuqGH7gsotmKsngmf5kmekzYvY5xWxm)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15_pre_poly : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_polynom1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v3_polynom7 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v2_pre_poly : \iota \Rightarrow o$ be given. Let $k2_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $k2_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k16_pre_poly : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow \\ & (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k15_pre_poly X0) \\ & (u1_struct_0 X1)) \wedge ((v3_polynom7 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k15_pre_poly X0) (u1_struct_0 X1)))))) \Rightarrow (\forall X3. \\ & ((v1_relat_1 X3) \wedge ((v4_relat_1 X3 X0) \wedge ((v1_funct_1 X3) \wedge ((v1_partfun1 \\ & X3 X0) \wedge ((v4_valued_0 X3) \wedge (v2_pre_poly X3)))))) \Rightarrow ((X3 = k2_polynom7 \\ & X0 X1 X2) \Leftrightarrow (\neg (k3_polynom1 X0 X1 X2 X3 = k4_struct_0 X1) \wedge (\neg (k2_polynom1 \\ & (k15_pre_poly X0) X1 X2 = k1_xboole_0) \wedge (X3 = k16_pre_poly X0)))))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge \\ & ((v13_algstr_0\ X1) \wedge (v3_rlvect_1\ X1) \wedge (v4_rlvect_1\ X1) \wedge (l2_algstr_0 \\ & X1)))) \Rightarrow (\forall X2.((v1_funct_1\ X2) \wedge (v1_funct_2\ X2\ (k15_pre_poly \\ & X0)\ (u1_struct_0\ X1)) \wedge (v1_polynom1\ X2\ (k15_pre_poly\ X0)\ X1) \wedge \\ & (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (\\ & u1_struct_0\ X1)))))) \Rightarrow (\forall X3.((v1_funct_1\ X3) \wedge (v1_funct_2 \\ & X3\ (k15_pre_poly\ X0)\ (u1_struct_0\ X1)) \wedge (v3_polynom7\ X3\ X0\ X1) \wedge \\ & (m1_subset_1\ X3\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (\\ & u1_struct_0\ X1)))))) \Rightarrow (\forall X4.((v1_relat_1\ X4) \wedge (v4_relat_1 \\ & X4\ X0) \wedge (v1_funct_1\ X4) \wedge (v1_partfun1\ X4\ X0) \wedge (v4_valued_0\ X4) \wedge \\ & (v2_pre_poly\ X4)))) \Rightarrow ((X4 \neq k2_polynom7\ X0\ X1\ X3) \Rightarrow (k3_polynom1 \\ & X0\ X1\ X3\ X4 = k4_struct_0\ X1)))) \end{aligned}$$