

t13_groeb_3 (TMZoqAVd- nYeyLVgX4mnh9NKWvw3GShJBpeW)

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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 $r2_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15_pre_poly : \iota \Rightarrow \iota$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ be given. Let $k5_vfunct.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l2_struct.0 : \iota \Rightarrow o$ 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 $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_valued.0 : \iota \Rightarrow o$ be given. Let $v2_pre_poly : \iota \Rightarrow o$ be given. Let $k3_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct.0 : \iota \Rightarrow \iota$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k4_algstr.0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_pre_poly : \iota \Rightarrow \iota$ be given. Let $v1_xboole.0 : \iota \Rightarrow o$ be given. Let $v4_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_algstr.0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct.0 X1) \wedge (l2_struct.0 X1)) \Rightarrow \\ & (\forall X2. ((v1_relat.1 X2) \wedge ((v4_relat.1 X2 X0) \wedge (v1_funct.1 \\ & X2) \wedge ((v1_partfun1 X2 X0) \wedge ((v4_valued.0 X2) \wedge (v2_pre_poly X2)))))) \Rightarrow \\ & (k3_polynom1 X0 X1 (k7_polynom1 X0 X1) X2 = k4_struct.0 X1) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct.0 X1) \wedge ((v13_algstr.0 X1) \wedge \\ & ((v3_rlvect.1 X1) \wedge ((v4_rlvect.1 X1) \wedge (l2_algstr.0 X1)))))) \Rightarrow (\\ & \forall X2. ((v1_funct.1 X2) \wedge ((v1_funct.2 X2 (k15_pre_poly X0) \\ & (u1_struct.0 X1)) \wedge (m1_subset.1 X2 (k1_zfmisc.1 (k2_zfmisc.1 \\ & (k15_pre_poly X0) (u1_struct.0 X1)))))) \Rightarrow (\forall X3. ((v1_funct.1 \\ & X3) \wedge ((v1_funct.2 X3 (k15_pre_poly X0) (u1_struct.0 X1)) \wedge (m1_subset.1 \\ & X3 (k1_zfmisc.1 (k2_zfmisc.1 (k15_pre_poly X0) (u1_struct.0 X1)))))) \Rightarrow \\ & ((\forall X4. ((v1_relat.1 X4) \wedge ((v4_relat.1 X4 X0) \wedge ((v1_funct.1 \\ & X4) \wedge ((v1_partfun1 X4 X0) \wedge ((v4_valued.0 X4) \wedge (v2_pre_poly X4)))))) \Rightarrow \\ & (k3_polynom1 X0 X1 X3 X4 = k4_algstr.0 X1 (k3_polynom1 X0 X1 X2 X4))) \Rightarrow \\ & (r2_funct.2 (k15_pre_poly X0) (u1_struct.0 X1) X3 (k5_vfunct.1 \\ & (k15_pre_poly X0) X1 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l2_algstr_0 X0)))))) \Rightarrow (k4_algstr_0 X0 \wedge (k4_struct_0 X0) = k4_struct_0 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow ((r2_funct_2 X0 X1 X2 X3) \Rightarrow (r2_funct_2 X0 X1 X3 X2)) \quad (4)$$

Assume the following.

$$\forall X0. k15_pre_poly X0 = k14_pre_poly X0 \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge (((\neg v2_struct_0 X1) \wedge (l2_algstr_0 X1)) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 (u1_struct_0 X1)))))))) \Rightarrow ((v1_funct_1 (k5_vfunct_1 X0 X1 X2)) \wedge (v1_partfun1 (k5_vfunct_1 X0 X1 X2) X0)) \quad (6)$$

Assume the following.

$$\forall X0. \neg v1_xboole_0 (k14_pre_poly X0) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow ((v1_funct_1 (k7_polynom1 X0 X1)) \wedge ((v1_funct_2 (k7_polynom1 X0 X1) (k15_pre_poly X0) (u1_struct_0 X1)) \wedge (v4_polynom7 (k7_polynom1 X0 X1) X0 X1))) \quad (8)$$

Assume the following.

$$\forall X0. (l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow ((v1_funct_1 (k7_polynom1 X0 X1)) \wedge ((v1_funct_2 (k7_polynom1 X0 X1) (k15_pre_poly X0) (u1_struct_0 X1)) \wedge (m1_subset_1 (k7_polynom1 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly X0) (u1_struct_0 X1)))))) \quad (10)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))) \Rightarrow ((v1_partfun1 X2 X0) \Rightarrow (v1_funct_2 X2 X0 X1)) \end{aligned} \tag{12}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge \\ & ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge (l2_algstr_0 X1)))))) \Rightarrow (\\ & r2_funct_2 (k15_pre_poly X0) (u1_struct_0 X1) (k5_vfunct_1 (k15_pre_poly \\ & X0) X1 (k7_polynom1 X0 X1)) (k7_polynom1 X0 X1)) \end{aligned}$$