

t23_groeb_1 (TMWRhxubE- WZegu7NsDeJCBMHBbQirYBm7p9)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ 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 $v2_bagorder : \iota \Rightarrow \iota \Rightarrow o$ 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 $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ 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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k11_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_groeb_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_ideal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_polyred : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v8_rewrite1 : \iota \Rightarrow o$ be given. Let $v4_rewrite1 : \iota \Rightarrow o$ be given. Let $v7_rewrite1 : \iota \Rightarrow o$ be given. Let $v9_rewrite1 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k14_pre_poly : \iota \Rightarrow \iota$ 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.

$$\begin{aligned}
& \forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.((v1_partfun1\ X1\ (k15_pre_poly \\
& \quad X0)) \wedge ((v1_relat_2\ X1) \wedge ((v4_relat_2\ X1) \wedge ((v6_relat_2\ X1) \wedge ((\\
& \quad v8_relat_2\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly \\
& \quad \quad X0)\ (k15_pre_poly\ X0)))))))))) \Rightarrow (\forall X2.((\neg v7_struct_0\ X2) \wedge \\
& \quad ((v13_algstr_0\ X2) \wedge ((v33_algstr_0\ X2) \wedge ((v3_group_1\ X2) \wedge ((v5_group_1 \\
& \quad \quad X2) \wedge ((v4_vectsp_1\ X2) \wedge ((v5_vectsp_1\ X2) \wedge ((v2_rlvect_1\ X2) \wedge \\
& \quad \quad ((v3_rlvect_1\ X2) \wedge ((v4_rlvect_1\ X2) \wedge (l6_algstr_0\ X2)))))))))) \Rightarrow \\
& \quad (\forall X3.(m1_subset_1\ X3\ (k1_zfmisc_1\ (u1_struct_0\ (k11_polynom1 \\
& \quad \quad X0\ X2)))) \Rightarrow (\forall X4.((v1_funct_1\ X4) \wedge ((v1_funct_2\ X4\ (k15_pre_poly \\
& \quad \quad X0)\ (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X4\ (k15_pre_poly\ X0)\ X2) \wedge \\
& \quad \quad (m1_subset_1\ X4\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (\\
& \quad \quad \quad u1_struct_0\ X2)))))) \Rightarrow ((r1_rewrite1\ (k3_polyred\ X0\ X1\ X2\ X3)\ X4 \\
& \quad (k7_polynom1\ X0\ X2)) \Rightarrow (X4 \in k7_ideal_1\ (k11_polynom1\ X0\ X2)\ X3))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1\ X0\ k5_numbers) \Rightarrow (\forall X1.((v1_partfun1 \\
& \quad X1\ (k15_pre_poly\ X0)) \wedge ((v1_relat_2\ X1) \wedge ((v4_relat_2\ X1) \wedge ((v6_relat_2 \\
& \quad X1) \wedge ((v8_relat_2\ X1) \wedge ((v2_bagorder\ X1\ X0) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1 \\
& \quad \quad (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (k15_pre_poly\ X0)))))))))) \Rightarrow (\\
& \quad \forall X2.((\neg v2_struct_0\ X2) \wedge ((\neg v6_struct_0\ X2) \wedge ((v13_algstr_0 \\
& \quad \quad X2) \wedge ((v33_algstr_0\ X2) \wedge ((v3_group_1\ X2) \wedge ((v5_group_1\ X2) \wedge (\\
& \quad \quad (v4_vectsp_1\ X2) \wedge ((v5_vectsp_1\ X2) \wedge ((v2_rlvect_1\ X2) \wedge ((v3_rlvect_1 \\
& \quad \quad \quad X2) \wedge ((v4_rlvect_1\ X2) \wedge (l6_algstr_0\ X2)))))))))) \Rightarrow (\forall X3. \\
& \quad ((\neg v1_xboole_0\ X3) \wedge (m1_subset_1\ X3\ (k1_zfmisc_1\ (u1_struct_0 \\
& \quad \quad (k11_polynom1\ X0\ X2)))))) \Rightarrow ((v8_rewrite1\ (k3_polyred\ X0\ X1\ X2\ X3)) \Rightarrow \\
& \quad (\forall X4.((v1_funct_1\ X4) \wedge ((v1_funct_2\ X4\ (k15_pre_poly\ X0) \\
& \quad \quad (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X4\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1 \\
& \quad \quad \quad X4\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)))))) \Rightarrow \\
& \quad ((X4 \in k7_ideal_1\ (k11_polynom1\ X0\ X2)\ X3) \Rightarrow (r1_rewrite1\ (k3_polyred \\
& \quad \quad \quad X0\ X1\ X2\ X3)\ X4\ (k7_polynom1\ X0\ X2))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((v1_partfun1 \\
& X1 (k15_pre_poly X0) \wedge ((v1_relat_2 X1) \wedge ((v4_relat_2 X1) \wedge ((v6_relat_2 \\
& X1) \wedge ((v8_relat_2 X1) \wedge ((v2_bagorder X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (k15_pre_poly X0) (k15_pre_poly X0)))))))))) \Rightarrow (\\
& \forall X2.((\neg v2_struct_0 X2) \wedge ((\neg v6_struct_0 X2) \wedge ((v13_algstr_0 \\
& X2) \wedge ((v33_algstr_0 X2) \wedge ((v3_group_1 X2) \wedge ((v5_group_1 X2) \wedge (\\
& (v4_vectsp_1 X2) \wedge ((v5_vectsp_1 X2) \wedge ((v2_rlvect_1 X2) \wedge ((v3_rlvect_1 \\
& X2) \wedge ((v4_rlvect_1 X2) \wedge (l6_algstr_0 X2)))))))))) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 (k11_polynom1 X0 X2)))) \Rightarrow \\
& ((v4_rewrite1 (k3_polyred X0 X1 X2 X3)) \Rightarrow (v8_rewrite1 (k3_polyred \\
& X0 X1 X2 X3))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.((v1_partfun1 X1 (k15_pre_poly \\
& X0) \wedge ((v1_relat_2 X1) \wedge ((v4_relat_2 X1) \wedge ((v6_relat_2 X1) \wedge ((\\
& v8_relat_2 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly \\
& X0) (k15_pre_poly X0)))))))))) \Rightarrow (\forall X2.((\neg v7_struct_0 X2) \wedge \\
& ((v13_algstr_0 X2) \wedge ((v33_algstr_0 X2) \wedge ((v3_group_1 X2) \wedge ((v5_group_1 \\
& X2) \wedge ((v4_vectsp_1 X2) \wedge ((v5_vectsp_1 X2) \wedge ((v3_rlvect_1 X2) \wedge \\
& ((v4_rlvect_1 X2) \wedge (l6_algstr_0 X2)))))))))) \Rightarrow (\forall X3.(m1_subset_1 \\
& X3 (k1_zfmisc_1 (u1_struct_0 (k11_polynom1 X0 X2)))) \Rightarrow ((v7_rewrite1 \\
& (k3_polyred X0 X1 X2 X3)) \Rightarrow (v4_rewrite1 (k3_polyred X0 X1 X2 X3))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((v1_partfun1 \\
& X1 (k15_pre_poly X0) \wedge ((v1_relat_2 X1) \wedge ((v4_relat_2 X1) \wedge ((v6_relat_2 \\
& X1) \wedge ((v8_relat_2 X1) \wedge ((v2_bagorder X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (k15_pre_poly X0) (k15_pre_poly X0)))))))))) \Rightarrow (\\
& \forall X2.((\neg v2_struct_0 X2) \wedge ((\neg v6_struct_0 X2) \wedge ((v13_algstr_0 \\
& X2) \wedge ((v33_algstr_0 X2) \wedge ((v3_group_1 X2) \wedge ((v5_group_1 X2) \wedge (\\
& (v4_vectsp_1 X2) \wedge ((v5_vectsp_1 X2) \wedge ((v2_rlvect_1 X2) \wedge ((v3_rlvect_1 \\
& X2) \wedge ((v4_rlvect_1 X2) \wedge (l6_algstr_0 X2)))))))))) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 (k11_polynom1 X0 X2)))) \Rightarrow \\
& ((v9_rewrite1 (k3_polyred X0 X1 X2 X3)) \Rightarrow (v7_rewrite1 (k3_polyred \\
& X0 X1 X2 X3))))))
\end{aligned} \tag{5}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{6}$$

Assume the following.

$$\forall X0.k15_pre_poly X0 = k14_pre_poly X0 \tag{7}$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \quad (8)$$

Assume the following.

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

Assume the following.

$$\forall X0. (l5_algstr_0 \ X0) \Rightarrow ((l4_algstr_0 \ X0) \wedge (l4_struct_0 \ X0)) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0. (v3_ordinal1 \ X0) \Rightarrow (\forall X1. ((v1_partfun1 \ X1 \ (k15_pre_poly \\ X0)) \wedge (v1_relat_2 \ X1) \wedge (v4_relat_2 \ X1) \wedge (v6_relat_2 \ X1) \wedge (\\ v8_relat_2 \ X1) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k15_pre_poly \\ X0) \ (k15_pre_poly \ X0)))))) \Rightarrow (\forall X2. ((\neg v7_struct_0 \ X2) \wedge \\ ((v13_algstr_0 \ X2) \wedge (v33_algstr_0 \ X2) \wedge (v3_group_1 \ X2) \wedge (v5_group_1 \\ X2) \wedge (v4_vectsp_1 \ X2) \wedge (v5_vectsp_1 \ X2) \wedge (v3_rlvect_1 \ X2) \wedge \\ ((v4_rlvect_1 \ X2) \wedge (l6_algstr_0 \ X2)))))) \Rightarrow (\forall X3. (m1_subset_1 \\ X3 \ (k1_zfmisc_1 \ (u1_struct_0 \ (k11_polynom1 \ X0 \ X2)))) \Rightarrow ((r1_groeb_1 \\ X0 \ X1 \ X2 \ X3) \Leftrightarrow (v9_rewrite1 \ (k3_polyred \ X0 \ X1 \ X2 \ X3)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0. (v3_ordinal1 \ X0) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ X0) \Rightarrow (v3_ordinal1 \ X1)) \quad (12)$$

Assume the following.

$$\forall X0. (l4_struct_0 \ X0) \Rightarrow ((\neg v6_struct_0 \ X0) \Rightarrow (\neg v7_struct_0 \ X0)) \quad (13)$$

Theorem 1

$$\begin{aligned} \forall X0. (m1_subset_1 \ X0 \ k5_numbers) \Rightarrow (\forall X1. ((v1_partfun1 \\ X1 \ (k15_pre_poly \ X0)) \wedge (v1_relat_2 \ X1) \wedge (v4_relat_2 \ X1) \wedge (v6_relat_2 \\ X1) \wedge (v8_relat_2 \ X1) \wedge (v2_bagorder \ X1 \ X0) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ (k2_zfmisc_1 \ (k15_pre_poly \ X0) \ (k15_pre_poly \ X0)))))) \Rightarrow (\\ \forall X2. ((\neg v2_struct_0 \ X2) \wedge (\neg v6_struct_0 \ X2) \wedge (v13_algstr_0 \\ X2) \wedge (v33_algstr_0 \ X2) \wedge (v3_group_1 \ X2) \wedge (v5_group_1 \ X2) \wedge (\\ v4_vectsp_1 \ X2) \wedge (v5_vectsp_1 \ X2) \wedge (v2_rlvect_1 \ X2) \wedge (v3_rlvect_1 \\ X2) \wedge (v4_rlvect_1 \ X2) \wedge (l6_algstr_0 \ X2)))) \Rightarrow (\forall X3. \\ ((v1_funct_1 \ X3) \wedge (v1_funct_2 \ X3 \ (k15_pre_poly \ X0) \ (u1_struct_0 \\ X2)) \wedge (v1_polynom1 \ X3 \ (k15_pre_poly \ X0) \ X2) \wedge (m1_subset_1 \ X3 \ (\\ k1_zfmisc_1 \ (k2_zfmisc_1 \ (k15_pre_poly \ X0) \ (u1_struct_0 \ X2)))))) \Rightarrow \\ (\forall X4. ((\neg v1_xboole_0 \ X4) \wedge (m1_subset_1 \ X4 \ (k1_zfmisc_1 \\ (u1_struct_0 \ (k11_polynom1 \ X0 \ X2)))))) \Rightarrow ((r1_groeb_1 \ X0 \ X1 \ X2 \ X4) \Rightarrow \\ ((X3 \in k7_ideal_1 \ (k11_polynom1 \ X0 \ X2) \ X4) \Leftrightarrow (r1_rewrite1 \ (k3_polyred \\ X0 \ X1 \ X2 \ X4) \ X3 \ (k7_polynom1 \ X0 \ X2)))))) \end{aligned}$$