

t25_groeb_1

(TMWw5nFLsZhpRMhk8QDvzUEB9TNY4pGbSKY)

October 27, 2020

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 $v7_struct_0 : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k11_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $v1_polynom7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r7_polyred : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_polyred : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given.

be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.((v1_partfun1\ X1\ (k15_pre_poly \\
& \quad X0)) \wedge ((v1_relat_2\ X1) \wedge ((v4_relat_2\ X1) \wedge ((v6_relat_2\ X1) \wedge ((\\
& \quad v8_relat_2\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly \\
& \quad X0)\ (k15_pre_poly\ X0)))))))))) \Rightarrow (\forall X2.((\neg v7_struct_0\ X2) \wedge \\
& \quad ((v13_algstr_0\ X2) \wedge ((v33_algstr_0\ X2) \wedge ((v3_group_1\ X2) \wedge ((v5_group_1 \\
& \quad X2) \wedge ((v4_vectsp_1\ X2) \wedge ((v5_vectsp_1\ X2) \wedge ((v3_rlvect_1\ X2) \wedge \\
& \quad ((v4_rlvect_1\ X2) \wedge (l6_algstr_0\ X2)))))))))) \Rightarrow (\forall X3.(m1_subset_1 \\
& \quad X3\ (k1_zfmisc_1\ (u1_struct_0\ (k11_polynom1\ X0\ X2)))) \Rightarrow (\forall X4. \\
& \quad \forall X5.(r1_rewrite1\ (k3_polyred\ X0\ X1\ X2\ X3)\ X4\ X5) \Rightarrow ((X4 = X5) \vee \\
& \quad ((v1_funct_1\ X4) \wedge ((v1_funct_2\ X4\ (k15_pre_poly\ X0)\ (u1_struct_0 \\
& \quad X2)) \wedge ((v1_polynom1\ X4\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1\ X4\ (\\
& \quad k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)))))) \wedge \\
& \quad ((v1_funct_1\ X5) \wedge ((v1_funct_2\ X5\ (k15_pre_poly\ X0)\ (u1_struct_0 \\
& \quad X2)) \wedge ((v1_polynom1\ X5\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1\ X5\ (\\
& \quad k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2))))))))))))) \\
& \tag{1}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.((v1_partfun1\ X1\ (k15_pre_poly \\
& \quad X0)) \wedge ((v1_relat_2\ X1) \wedge ((v4_relat_2\ X1) \wedge ((v6_relat_2\ X1) \wedge ((\\
& \quad v8_relat_2\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly \\
& \quad X0)\ (k15_pre_poly\ X0)))))))))) \Rightarrow (\forall X2.((\neg v7_struct_0\ X2) \wedge \\
& \quad ((v13_algstr_0\ X2) \wedge ((v33_algstr_0\ X2) \wedge ((v3_group_1\ X2) \wedge ((v5_group_1 \\
& \quad X2) \wedge ((v4_vectsp_1\ X2) \wedge ((v5_vectsp_1\ X2) \wedge ((v3_rlvect_1\ X2) \wedge \\
& \quad ((v4_rlvect_1\ X2) \wedge (l6_algstr_0\ X2)))))))))) \Rightarrow (\forall X3.((\\
& \quad v1_funct_1\ X3) \wedge ((v1_funct_2\ X3\ (k15_pre_poly\ X0)\ (u1_struct_0 \\
& \quad X2)) \wedge ((v1_polynom1\ X3\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1\ X3\ (\\
& \quad k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)))))) \Rightarrow \\
& \quad (\forall X4.((v1_funct_1\ X4) \wedge ((v1_funct_2\ X4\ (k15_pre_poly\ X0) \\
& \quad (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X4\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1 \\
& \quad X4\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)))))) \Rightarrow \\
& \quad (\forall X5.(m1_subset_1\ X5\ (k1_zfmisc_1\ (u1_struct_0\ (k11_polynom1 \\
& \quad X0\ X2)))) \Rightarrow (\neg(r1_rewrite1\ (k3_polyred\ X0\ X1\ X2\ X5)\ X3\ X4) \wedge ((X4 \neq X3) \wedge \\
& \quad (\forall X6.((v1_funct_1\ X6) \wedge ((v1_funct_2\ X6\ (k15_pre_poly\ X0) \\
& \quad (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X6\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1 \\
& \quad X6\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)))))) \Rightarrow \\
& \quad (\neg(r5_polyred\ X0\ X1\ X2\ X3\ X6\ X5) \wedge (r1_rewrite1\ (k3_polyred\ X0\ X1\ X2 \\
& \quad X5)\ X6\ X4))))))))) \\
& \tag{2}
\end{aligned}$$

Assume the following.

$$\forall X0.(l6_algstr_0\ X0) \Rightarrow ((l2_algstr_0\ X0) \wedge (l5_algstr_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.(l2_struct_0\ X0) \Rightarrow (l1_struct_0\ X0) \tag{4}$$

Assume the following.

$$\forall X0.(l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.((v1_partfun1 X1 (k15_pre_poly \\ X0)) \wedge ((v1_relat_2 X1) \wedge ((v4_relat_2 X1) \wedge ((v6_relat_2 X1) \wedge ((\\ v8_relat_2 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly \\ X0) (k15_pre_poly X0)))))))))) \Rightarrow (\forall X2.((\neg v7_struct_0 X2) \wedge \\ ((v13_algstr_0 X2) \wedge ((v33_algstr_0 X2) \wedge ((v3_group_1 X2) \wedge ((v5_group_1 \\ X2) \wedge ((v4_vectsp_1 X2) \wedge ((v5_vectsp_1 X2) \wedge ((v3_rlvect_1 X2) \wedge \\ ((v4_rlvect_1 X2) \wedge (l6_algstr_0 X2)))))))))) \Rightarrow (\forall X3.((\\ v1_funct_1 X3) \wedge ((v1_funct_2 X3 (k15_pre_poly X0) (u1_struct_0 \\ X2)) \wedge ((v1_polynom1 X3 (k15_pre_poly X0) X2) \wedge (m1_subset_1 X3 (\\ k1_zfmisc_1 (k2_zfmisc_1 (k15_pre_poly X0) (u1_struct_0 X2)))))) \Rightarrow \\ (\forall X4.(m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 (k11_polynom1 \\ X0 X2)))) \Rightarrow ((r7_polyred X0 X1 X2 X3 X4) \Leftrightarrow (\exists X5.((v1_funct_1 \\ X5) \wedge ((v1_funct_2 X5 (k15_pre_poly X0) (u1_struct_0 X2)) \wedge ((v1_polynom1 \\ X5 (k15_pre_poly X0) X2) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 \\ (k15_pre_poly X0) (u1_struct_0 X2)))))) \wedge (r5_polyred X0 X1 X2 \\ X3 X5 X4)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v2_struct_0 X1) \wedge (l2_struct_0 X1)) \Rightarrow \\ (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k15_pre_poly X0) \\ (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ (k15_pre_poly X0) (u1_struct_0 X1)))))) \Rightarrow ((v1_polynom7 X2 X0 X1) \Leftrightarrow \\ (X2 \neq k7_polynom1 X0 X1))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow ((v2_struct_0 X0) \Rightarrow (v7_struct_0 X0)) \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.((v1_partfun1\ X1\ (k15_pre_poly \\ & \quad X0)) \wedge ((v1_relat_2\ X1) \wedge ((v4_relat_2\ X1) \wedge ((v6_relat_2\ X1) \wedge ((\\ & v8_relat_2\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly \\ & \quad X0)\ (k15_pre_poly\ X0)))))))))) \Rightarrow (\forall X2.((\neg v7_struct_0\ X2) \wedge \\ & ((v13_algstr_0\ X2) \wedge ((v33_algstr_0\ X2) \wedge ((v3_group_1\ X2) \wedge ((v5_group_1 \\ & \quad X2) \wedge ((v4_vectsp_1\ X2) \wedge ((v5_vectsp_1\ X2) \wedge ((v3_rlvect_1\ X2) \wedge \\ & ((v4_rlvect_1\ X2) \wedge (l6_algstr_0\ X2)))))))))) \Rightarrow (\forall X3.(m1_subset_1 \\ & \quad X3\ (k1_zfmisc_1\ (u1_struct_0\ (k11_polynom1\ X0\ X2)))) \Rightarrow (\forall X4. \\ & (m1_subset_1\ X4\ (k1_zfmisc_1\ (u1_struct_0\ (k11_polynom1\ X0\ X2)))) \Rightarrow \\ & \quad ((\forall X5.((v1_funct_1\ X5) \wedge ((v1_funct_2\ X5\ (k15_pre_poly \\ & \quad X0)\ (u1_struct_0\ X2)) \wedge ((v1_polynom1\ X5\ (k15_pre_poly\ X0)\ X2) \wedge \\ & \quad (m1_subset_1\ X5\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (\\ & \quad u1_struct_0\ X2)))))) \Rightarrow ((X5 \in X4) \Rightarrow (r1_rewrite1\ (k3_polyred\ X0 \\ & \quad X1\ X2\ X3)\ X5\ (k7_polynom1\ X0\ X2)))) \Rightarrow (\forall X5.((v1_funct_1\ X5) \wedge \\ & ((v1_funct_2\ X5\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)) \wedge ((v1_polynom7 \\ & \quad X5\ X0\ X2) \wedge ((v1_polynom1\ X5\ (k15_pre_poly\ X0)\ X2) \wedge (m1_subset_1 \\ & \quad X5\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k15_pre_poly\ X0)\ (u1_struct_0\ X2)))))) \Rightarrow \\ & \quad ((X5 \in X4) \Rightarrow (r7_polyred\ X0\ X1\ X2\ X5\ X3)))))) \end{aligned}$$