

## t3\_groeb\_1

(TMXkQyNJeP34K5c8K7y14zDLqJjfsyTXBBt)

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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  $v7\_struct\_0 : \iota \Rightarrow o$  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  $v1\_funct\_1 : \iota \Rightarrow o$  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  $k11\_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r5\_polyred : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let

$r4\_polyred : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.((v1\_partfun1 X1 (k15\_pre\_poly \\
& \quad X0)) \wedge ((v1\_relat\_2 X1) \wedge ((v4\_relat\_2 X1) \wedge ((v6\_relat\_2 X1) \wedge (( \\
& \quad v8\_relat\_2 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k15\_pre\_poly \\
& \quad X0) (k15\_pre\_poly X0)))))))))) \Rightarrow (\forall X2.((\neg v7\_struct\_0 X2) \wedge \\
& \quad ((v13\_algstr\_0 X2) \wedge ((v33\_algstr\_0 X2) \wedge ((v3\_group\_1 X2) \wedge ((v5\_group\_1 \\
& \quad X2) \wedge ((v4\_vectsp\_1 X2) \wedge ((v5\_vectsp\_1 X2) \wedge ((v3\_rlvect\_1 X2) \wedge \\
& \quad ((v4\_rlvect\_1 X2) \wedge (l6\_algstr\_0 X2)))))))))) \Rightarrow (\forall X3.(( \\
& \quad v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 (k15\_pre\_poly X0) (u1\_struct\_0 \\
& \quad X2)) \wedge ((v1\_polynom1 X3 (k15\_pre\_poly X0) X2) \wedge (m1\_subset\_1 X3 ( \\
& \quad k1\_zfmisc\_1 (k2\_zfmisc\_1 (k15\_pre\_poly X0) (u1\_struct\_0 X2)))))) \Rightarrow \\
& \quad (\forall X4.((v1\_funct\_1 X4) \wedge ((v1\_funct\_2 X4 (k15\_pre\_poly X0) \\
& \quad (u1\_struct\_0 X2)) \wedge ((v1\_polynom1 X4 (k15\_pre\_poly X0) X2) \wedge (m1\_subset\_1 \\
& \quad X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k15\_pre\_poly X0) (u1\_struct\_0 X2)))))) \Rightarrow \\
& \quad (\forall X5.(m1\_subset\_1 X5 (k1\_zfmisc\_1 (u1\_struct\_0 (k11\_polynom1 \\
& \quad X0 X2)))) \Rightarrow ((r5\_polyred X0 X1 X2 X3 X4 X5) \Leftrightarrow (\exists X6.((v1\_funct\_1 \\
& \quad X6) \wedge ((v1\_funct\_2 X6 (k15\_pre\_poly X0) (u1\_struct\_0 X2)) \wedge ((v1\_polynom1 \\
& \quad X6 (k15\_pre\_poly X0) X2) \wedge (m1\_subset\_1 X6 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\
& \quad (k15\_pre\_poly X0) (u1\_struct\_0 X2)))))) \wedge ((X6 \in X5) \wedge (r4\_polyred \\
& \quad X0 X1 X2 X3 X6 X4)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{2}$$

### Theorem 1

$$\begin{aligned}
& \forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.((v1\_partfun1 X1 (k15\_pre\_poly \\
& \quad X0)) \wedge ((v1\_relat\_2 X1) \wedge ((v4\_relat\_2 X1) \wedge ((v6\_relat\_2 X1) \wedge (( \\
& \quad v8\_relat\_2 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k15\_pre\_poly \\
& \quad X0) (k15\_pre\_poly X0)))))))))) \Rightarrow (\forall X2.((\neg v7\_struct\_0 X2) \wedge \\
& \quad ((v13\_algstr\_0 X2) \wedge ((v33\_algstr\_0 X2) \wedge ((v3\_group\_1 X2) \wedge ((v5\_group\_1 \\
& \quad X2) \wedge ((v4\_vectsp\_1 X2) \wedge ((v5\_vectsp\_1 X2) \wedge ((v3\_rlvect\_1 X2) \wedge \\
& \quad ((v4\_rlvect\_1 X2) \wedge (l6\_algstr\_0 X2)))))))))) \Rightarrow (\forall X3.(( \\
& \quad v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 (k15\_pre\_poly X0) (u1\_struct\_0 \\
& \quad X2)) \wedge ((v1\_polynom1 X3 (k15\_pre\_poly X0) X2) \wedge (m1\_subset\_1 X3 ( \\
& \quad k1\_zfmisc\_1 (k2\_zfmisc\_1 (k15\_pre\_poly X0) (u1\_struct\_0 X2)))))) \Rightarrow \\
& \quad (\forall X4.((v1\_funct\_1 X4) \wedge ((v1\_funct\_2 X4 (k15\_pre\_poly X0) \\
& \quad (u1\_struct\_0 X2)) \wedge ((v1\_polynom1 X4 (k15\_pre\_poly X0) X2) \wedge (m1\_subset\_1 \\
& \quad X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k15\_pre\_poly X0) (u1\_struct\_0 X2)))))) \Rightarrow \\
& \quad (\forall X5.(m1\_subset\_1 X5 (k1\_zfmisc\_1 (u1\_struct\_0 (k11\_polynom1 \\
& \quad X0 X2)))) \Rightarrow (\forall X6.(m1\_subset\_1 X6 (k1\_zfmisc\_1 (u1\_struct\_0 \\
& \quad (k11\_polynom1 X0 X2)))) \Rightarrow (((r1\_tarski X5 X6) \wedge (r5\_polyred X0 X1 \\
& \quad X2 X3 X4 X5)) \Rightarrow (r5\_polyred X0 X1 X2 X3 X4 X6)))))))))
\end{aligned}$$