t31_groeb_1 (TMHijSCZNkBhNEezTDPpCsffY1innXqKQfq)

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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 $v7\_struct\_0 : \iota \Rightarrow o$ 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 $v2\_rlvect\_1 : \iota \Rightarrow o$ 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 $r2\_groeb\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_groeb\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_ideal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11\_polynom1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v9\_rewrite1 : \iota \Rightarrow o$ be given. Let $k3\_polyred : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ 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. 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. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_ideal\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_ideal\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_ideal\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $v3\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v36\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let

$v6\_vectsp\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.((v1\_partfun1\ X1\ (k15\_pre\_poly\ X0)) \wedge ((v1\_relat\_2\ X1) \wedge ((v4\_relat\_2\ X1) \wedge ((v6\_relat\_2\ X1) \wedge ((v8\_relat\_2\ X1) \wedge ((v2\_bagorder\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (k15\_pre\_poly\ X0))))))))))) \Rightarrow (\forall X2.((\neg v7\_struct\_0\ X2) \wedge ((v13\_algstr\_0\ X2) \wedge ((v33\_algstr\_0\ X2) \wedge ((v3\_group\_1\ X2) \wedge ((v5\_group\_1\ X2) \wedge ((v4\_vectsp\_1\ X2) \wedge ((v5\_vectsp\_1\ X2) \wedge ((v2\_rlvect\_1\ X2) \wedge ((v3\_rlvect\_1\ X2) \wedge ((v4\_rlvect\_1\ X2) \wedge (l6\_algstr\_0\ X2))))))))))) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X2)) \wedge ((v1\_polynom1\ X3\ (k15\_pre\_poly\ X0)\ X2) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X2))))))) \Rightarrow (v9\_rewrite1\ (k3\_polyred\ X0\ X1\ X2\ (k1\_groeb\_1\ X0\ X2\ X3)))))) \tag{1}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{2}$$

Assume the following.

$$\forall X0.(l6\_algstr\_0\ X0) \Rightarrow ((l2\_algstr\_0\ X0) \wedge (l5\_algstr\_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.(l5\_algstr\_0\ X0) \Rightarrow ((l4\_algstr\_0\ X0) \wedge (l4\_struct\_0\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(l2\_struct\_0\ X0) \Rightarrow (l1\_struct\_0\ X0) \tag{5}$$

Assume the following.

$$\forall X0.(l2\_algstr\_0\ X0) \Rightarrow ((l2\_struct\_0\ X0) \wedge (l1\_algstr\_0\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge (l6\_algstr\_0\ X0)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow ((\neg v1\_xboole\_0\ (k7\_ideal\_1\ X0\ X1)) \wedge ((v1\_ideal\_1\ (k7\_ideal\_1\ X0\ X1)\ X0) \wedge ((v2\_ideal\_1\ (k7\_ideal\_1\ X0\ X1)\ X0) \wedge ((v3\_ideal\_1\ (k7\_ideal\_1\ X0\ X1)\ X0) \wedge (m1\_subset\_1\ (k7\_ideal\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v3\_ordinal1\ X0)\wedge(((\neg v7\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v4\_vectsp\_1\ X1)\wedge((v5\_vectsp\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge(l6\_algstr\_0\ X1)))))))\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))\wedge((v1\_polynom1\ X2\ (k15\_pre\_poly\ X0)\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X1))))))))\Rightarrow(m1\_subset\_1\ (k1\_groeb\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k11\_polynom1\ X0\ X1))))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0)\wedge((\neg v7\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v3\_vectsp\_1\ X1)\wedge((v5\_vectsp\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge(l6\_algstr\_0\ X1)))))))\Rightarrow((\neg v2\_struct\_0\ (k11\_polynom1\ X0\ X1))\wedge((v36\_algstr\_0\ (k11\_polynom1\ X0\ X1))\wedge(l6\_algstr\_0\ (k11\_polynom1\ X0\ X1)))) \tag{9}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0)\Rightarrow(\forall X1.((v1\_partfun1\ X1\ (k15\_pre\_poly\ X0))\wedge((v1\_relat\_2\ X1)\wedge((v4\_relat\_2\ X1)\wedge((v6\_relat\_2\ X1)\wedge((v8\_relat\_2\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (k15\_pre\_poly\ X0))))))))))\Rightarrow(\forall X2.((\neg v7\_struct\_0\ X2)\wedge((v13\_algstr\_0\ X2)\wedge((v33\_algstr\_0\ X2)\wedge((v3\_group\_1\ X2)\wedge((v5\_group\_1\ X2)\wedge((v4\_vectsp\_1\ X2)\wedge((v5\_vectsp\_1\ X2)\wedge((v3\_rlvect\_1\ X2)\wedge((v4\_rlvect\_1\ X2)\wedge(l6\_algstr\_0\ X2))))))))))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k11\_polynom1\ X0\ X2))))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k11\_polynom1\ X0\ X2))))\Rightarrow((r2\_groeb\_1\ X0\ X1\ X2\ X3\ X4)\Leftrightarrow((k7\_ideal\_1\ (k11\_polynom1\ X0\ X2)\ X3 = X4)\wedge(v9\_rewrite1\ (k3\_polyred\ X0\ X1\ X2\ X3)))))))) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{11}$$

Assume the following.

$$\forall X0.(l4\_algstr\_0\ X0)\Rightarrow(((\neg v2\_struct\_0\ X0)\wedge(v4\_vectsp\_1\ X0))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge((v3\_vectsp\_1\ X0)\wedge(v6\_vectsp\_1\ X0)))) \tag{12}$$

Assume the following.

$$\forall X0.(l1\_struct\_0\ X0)\Rightarrow((\neg v7\_struct\_0\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{13}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v3\_ordinal1\ X0)\wedge(v7\_ordinal1\ X0)) \tag{14}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.((v1\_partfun1\ X1\ (k15\_pre\_poly\ X0))\wedge((v1\_relat\_2\ X1)\wedge((v4\_relat\_2\ X1)\wedge((v6\_relat\_2\ X1)\wedge((v8\_relat\_2\ X1)\wedge((v2\_bagorder\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (k15\_pre\_poly\ X0))))))))))\Rightarrow(\forall X2.((\neg v7\_struct\_0\ X2)\wedge((v13\_algstr\_0\ X2)\wedge((v33\_algstr\_0\ X2)\wedge((v3\_group\_1\ X2)\wedge((v5\_group\_1\ X2)\wedge((v4\_vectsp\_1\ X2)\wedge((v5\_vectsp\_1\ X2)\wedge((v2\_rlvect\_1\ X2)\wedge((v3\_rlvect\_1\ X2)\wedge((v4\_rlvect\_1\ X2)\wedge(l6\_algstr\_0\ X2))))))))))\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X2))\wedge((v1\_polynom1\ X3\ (k15\_pre\_poly\ X0)\ X2)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k15\_pre\_poly\ X0)\ (u1\_struct\_0\ X2)))))))\Rightarrow(r2\_groeb\_1\ X0\ X1\ X2\ (k1\_groeb\_1\ X0\ X2\ X3)\ (k7\_ideal\_1\ (k11\_polynom1\ X0\ X2)\ (k1\_groeb\_1\ X0\ X2\ X3))))))$$