

t49_polyform
(TMKtx6zPydgetmbz6BXYVWGgKfGVjZN7Z5d)

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Let $v2_polyform : \iota \Rightarrow o$ be given. Let $v3_polyform : \iota \Rightarrow o$ be given. Let $v4_polyform : \iota \Rightarrow o$ be given. Let $l1_polyform : \iota \Rightarrow o$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k1_vectsp_9 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_bspace : \iota$ be given. Let $k17_polyform : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_ranknull : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k21_polyform : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_ranknull : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ 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 $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $v8_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v9_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v10_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v11_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_matrlin : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v13_vectsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_mod_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$

be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\
& X0) \wedge ((v33_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge \\
& ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge ((v5_group_1 X0) \wedge ((v4_vectsp_1 \\
& X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow (\forall X1. \\
& ((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 X1) \wedge ((\\
& v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v8_vectsp_1 X1 X0) \wedge ((v9_vectsp_1 \\
& X1 X0) \wedge ((v10_vectsp_1 X1 X0) \wedge ((v11_vectsp_1 X1 X0) \wedge ((v1_matrlin \\
& X1 X0) \wedge (l1_vectsp_1 X1 X0)))))))))) \Rightarrow (\forall X2. ((\neg v2_struct_0 \\
& X2) \wedge ((v13_algstr_0 X2) \wedge ((v2_rlvect_1 X2) \wedge ((v3_rlvect_1 X2) \wedge \\
& ((v4_rlvect_1 X2) \wedge ((v8_vectsp_1 X2 X0) \wedge ((v9_vectsp_1 X2 X0) \wedge \\
& ((v10_vectsp_1 X2 X0) \wedge ((v11_vectsp_1 X2 X0) \wedge ((v1_matrlin X2 X0) \wedge \\
& (l1_vectsp_1 X2 X0)))))))))) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge \\
& ((v1_funct_2 X3 (u1_struct_0 X1) (u1_struct_0 X2)) \wedge ((v13_vectsp_1 \\
& X3 X1 X2) \wedge ((v1_mod_2 X3 X0 X1 X2) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (\\
& k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 X2)))))))))) \Rightarrow (k1_vectsp_9 \\
& X0 X1 = k2_xcmplx_0 (k10_ranknull X0 X1 X2 X3) (k11_ranknull X0 X1 \\
& X2 X3))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\
& ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers))
\end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_int_1 X0) \wedge (v1_int_1 X1)) \Rightarrow (v1_int_1 (k6_xcmplx_0 X0 X1)) \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v2_polyform X0) \wedge ((v3_polyform X0) \wedge \\
& ((v4_polyform X0) \wedge (l1_polyform X0)))) \wedge (v1_int_1 X1)) \Rightarrow ((v1_funct_1 \\
& (k21_polyform X0 X1)) \wedge ((v1_funct_2 (k21_polyform X0 X1) (u1_struct_0 \\
& (k17_polyform X0 X1)) (u1_struct_0 (k17_polyform X0 (k6_xcmplx_0 \\
& X1 np_1)))) \wedge ((v13_vectsp_1 (k21_polyform X0 X1) (k17_polyform \\
& X0 X1) (k17_polyform X0 (k6_xcmplx_0 X1 np_1))) \wedge (v1_mod_2 (k21_polyform \\
& X0 X1) k2_bspace (k17_polyform X0 X1) (k17_polyform X0 (k6_xcmplx_0 \\
& X1 np_1))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& (\neg v2_struct_0 \ k2_bspace) \wedge ((\neg v6_struct_0 \ k2_bspace) \wedge ((v13_algstr_0 \\
& \quad k2_bspace) \wedge ((v33_algstr_0 \ k2_bspace) \wedge ((v3_group_1 \ k2_bspace) \wedge \\
& \quad ((v5_group_1 \ k2_bspace) \wedge ((v4_vectsp_1 \ k2_bspace) \wedge ((v5_vectsp_1 \\
& \quad k2_bspace) \wedge ((v2_rlvect_1 \ k2_bspace) \wedge ((v3_rlvect_1 \ k2_bspace) \wedge \\
& \quad ((v4_rlvect_1 \ k2_bspace) \wedge (l6_algstr_0 \ k2_bspace))))))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v2_polyform \ X0) \wedge ((v3_polyform \ X0) \wedge \\
& \quad ((v4_polyform \ X0) \wedge (l1_polyform \ X0)))) \wedge (v1_int_1 \ X1)) \Rightarrow ((v1_funct_1 \\
& \quad (k21_polyform \ X0 \ X1)) \wedge ((v1_funct_2 \ (k21_polyform \ X0 \ X1) \ (u1_struct_0 \\
& \quad (k17_polyform \ X0 \ X1)) \ (u1_struct_0 \ (k17_polyform \ X0 \ (k6_xcmplx_0 \\
& \quad X1 \ np_1)))) \wedge (m1_subset_1 \ (k21_polyform \ X0 \ X1) \ (k1_zfmisc_1 \ (\\
& \quad k2_zfmisc_1 \ (u1_struct_0 \ (k17_polyform \ X0 \ X1)) \ (u1_struct_0 \ (\\
& \quad k17_polyform \ X0 \ (k6_xcmplx_0 \ X1 \ np_1))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((v2_polyform \ X0) \wedge ((v3_polyform \ X0) \wedge \\
& \quad ((v4_polyform \ X0) \wedge (l1_polyform \ X0)))) \wedge (v1_int_1 \ X1)) \Rightarrow ((\neg v2_struct_0 \\
& \quad (k17_polyform \ X0 \ X1)) \wedge ((v13_algstr_0 \ (k17_polyform \ X0 \ X1)) \wedge (\\
& \quad (v8_vectsp_1 \ (k17_polyform \ X0 \ X1) \ k2_bspace) \wedge ((v9_vectsp_1 \ (\\
& \quad k17_polyform \ X0 \ X1) \ k2_bspace) \wedge ((v10_vectsp_1 \ (k17_polyform \\
& \quad X0 \ X1) \ k2_bspace) \wedge ((v11_vectsp_1 \ (k17_polyform \ X0 \ X1) \ k2_bspace) \wedge \\
& \quad ((v2_rlvect_1 \ (k17_polyform \ X0 \ X1)) \wedge ((v3_rlvect_1 \ (k17_polyform \\
& \quad X0 \ X1)) \wedge ((v4_rlvect_1 \ (k17_polyform \ X0 \ X1)) \wedge ((v1_matrlin \ (k17_polyform \\
& \quad X0 \ X1) \ k2_bspace) \wedge (l1_vectsp_1 \ (k17_polyform \ X0 \ X1) \ k2_bspace))))))))))
\end{aligned} \tag{8}$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \tag{9}$$

Assume the following.

$$\forall X0. (v7_ordinal1 \ X0) \Rightarrow (v1_int_1 \ X0) \tag{10}$$

Theorem 1

$$\begin{aligned}
& \forall X0. ((v2_polyform \ X0) \wedge ((v3_polyform \ X0) \wedge ((v4_polyform \\
& \quad X0) \wedge (l1_polyform \ X0)))) \Rightarrow (\forall X1. (v1_int_1 \ X1) \Rightarrow (k1_vectsp_9 \\
& \quad k2_bspace \ (k17_polyform \ X0 \ X1) = k2_xcmplx_0 \ (k10_ranknull \ k2_bspace \\
& \quad (k17_polyform \ X0 \ X1) \ (k17_polyform \ X0 \ (k6_xcmplx_0 \ X1 \ np_1)) \ (\\
& \quad k21_polyform \ X0 \ X1)) \ (k11_ranknull \ k2_bspace \ (k17_polyform \ X0 \\
& \quad X1) \ (k17_polyform \ X0 \ (k6_xcmplx_0 \ X1 \ np_1)) \ (k21_polyform \ X0 \ X1))))
\end{aligned}$$