

t66_hermitan (TMYrRcu-
JRqHavPM2AfBYA19BYnLwZEaAjoR)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ 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 $v8_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_complfld : \iota$ 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 $l1_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v2_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_hermitan : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_hermitan : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k10_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_vectsp10 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_hermitan : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_hermitan : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v8_vectsp_1 X0 k1_complfld) \wedge \\
& ((v9_vectsp_1 X0 k1_complfld) \wedge ((v10_vectsp_1 X0 k1_complfld) \wedge \\
& ((v11_vectsp_1 X0 k1_complfld) \wedge (l1_vectsp_1 X0 k1_complfld)))))))))) \Rightarrow \\
& (\forall X1. ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k2_zfmisc_1 (u1_struct_0 \\
& X0) (u1_struct_0 X0)) (u1_struct_0 k1_complfld) \wedge ((v2_bilinear \\
& X1 k1_complfld X0 X0) \wedge ((v4_bilinear X1 k1_complfld X0 X0) \wedge ((v3_hermitan \\
& X1 X0) \wedge ((v5_hermitan X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (u1_struct_0 \\
& k1_complfld)))))))))) \Rightarrow (k13_bilinear k1_complfld X0 X0 X1 = k14_bilinear \\
& k1_complfld X0 X0 (k3_hermitan X0 X0 X1)))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v8_vectsp_1 X0 k1_complfld) \wedge \\
& ((v9_vectsp_1 X0 k1_complfld) \wedge ((v10_vectsp_1 X0 k1_complfld) \wedge \\
& ((v11_vectsp_1 X0 k1_complfld) \wedge (l1_vectsp_1 X0 k1_complfld)))))))))) \Rightarrow \\
& (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k2_zfmisc_1 (u1_struct_0 \\
& X0) (u1_struct_0 X0)) (u1_struct_0 k1_complfld)) \wedge ((v2_bilinear \\
& X1 k1_complfld X0 X0) \wedge ((v4_bilinear X1 k1_complfld X0 X0) \wedge ((v3_hermitan \\
& X1 X0) \wedge ((v5_hermitan X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (u1_struct_0 \\
& k1_complfld)))))))))) \Rightarrow (k8_hermitan X0 X1 = k7_hermitan X0 X0 X1)) \\
& \tag{2}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v8_vectsp_1 X0 k1_complfld) \wedge \\
& ((v9_vectsp_1 X0 k1_complfld) \wedge ((v10_vectsp_1 X0 k1_complfld) \wedge \\
& ((v11_vectsp_1 X0 k1_complfld) \wedge (l1_vectsp_1 X0 k1_complfld)))))))))) \Rightarrow \\
& (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k2_zfmisc_1 (u1_struct_0 \\
& X0) (u1_struct_0 X0)) (u1_struct_0 k1_complfld)) \wedge ((v2_bilinear \\
& X1 k1_complfld X0 X0) \wedge ((v4_bilinear X1 k1_complfld X0 X0) \wedge ((v3_hermitan \\
& X1 X0) \wedge ((v5_hermitan X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (u1_struct_0 \\
& k1_complfld)))))))))) \Rightarrow (k10_bilinear k1_complfld (k6_vectsp10 \\
& k1_complfld X0 (k13_bilinear k1_complfld X0 X0 X1)) (k6_vectsp10 \\
& k1_complfld X0 (k13_bilinear k1_complfld X0 X0 X1)) (k8_hermitan \\
& X0 X1) = k10_bilinear k1_complfld (k6_vectsp10 k1_complfld X0 (\\
& k13_bilinear k1_complfld X0 X0 X1)) (k6_vectsp10 k1_complfld X0 (\\
& k14_bilinear k1_complfld X0 X0 (k3_hermitan X0 X0 X1)) (k7_hermitan \\
& X0 X0 X1)))
\end{aligned}$$