t61_hermitan (TMcCNjyz14ekfAjA6bVzrKzhQGiTxdzG8kt)

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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 $v1\_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_hermitan : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k14\_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_hermitan : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k15\_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11\_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ 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 $v6\_struct\_0 : \iota \Rightarrow o$ be given. Let $v33\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v36\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v5\_group\_1 : \iota \Rightarrow o$ be given. Let $v3\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v6\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v3\_bilinear : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_vectsp\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_vectsp\_1\ X0\ k1\_complfld)) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge (l1\_vectsp\_1\ X1\ k1\_complfld)) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld)))))) \Rightarrow ((k10\_bilinear\ k1\_complfld\ X0\ X1\ X2 = k10\_bilinear\ k1\_complfld\ X0\ X1\ (k3\_hermitan\ X0\ X1\ X2)) \wedge (k11\_bilinear\ k1\_complfld\ X0\ X1\ X2 = k11\_bilinear\ k1\_complfld\ X0\ X1\ (k3\_hermitan\ X0\ X1\ X2)))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0)))))))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v8\_vectsp\_1\ X1\ X0)\wedge((v9\_vectsp\_1\ X1\ X0)\wedge((v10\_vectsp\_1\ X1\ X0)\wedge((v11\_vectsp\_1\ X1\ X0)\wedge(l1\_vectsp\_1\ X1\ X0)))))))))\Rightarrow(\forall X2.((\neg v2\_struct\_0\ X2)\wedge(l1\_vectsp\_1\ X2\ X0))\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0))\wedge((v2\_bilinear\ X3\ X0\ X1\ X2)\wedge((v4\_bilinear\ X3\ X0\ X1\ X2)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0)))))))))\Rightarrow(k11\_bilinear\ X0\ X1\ X2\ X3 = k11\_bilinear\ X0\ (k6\_vectsp10\ X0\ X1\ (k13\_bilinear\ X0\ X1\ X2\ X3))\ X2\ (k15\_bilinear\ X0\ X1\ X2\ X3)))))) \tag{2}$$

Assume the following.

$$(\neg v6\_struct\_0\ k1\_complfld)\wedge((v13\_algstr\_0\ k1\_complfld)\wedge((v33\_algstr\_0\ k1\_complfld)\wedge((v36\_algstr\_0\ k1\_complfld)\wedge((v3\_group\_1\ k1\_complfld)\wedge((v5\_group\_1\ k1\_complfld)\wedge((v3\_vectsp\_1\ k1\_complfld)\wedge((v5\_vectsp\_1\ k1\_complfld)\wedge((v6\_vectsp\_1\ k1\_complfld)\wedge((v2\_rlvect\_1\ k1\_complfld)\wedge((v3\_rlvect\_1\ k1\_complfld)\wedge(v4\_rlvect\_1\ k1\_complfld))))))))))) \tag{3}$$

Assume the following.

$$(v36\_algstr\_0\ k1\_complfld)\wedge(v4\_vectsp\_1\ k1\_complfld) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\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))))))))))\wedge(((\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\ k1\_complfld)\wedge((v9\_vectsp\_1\ X1\ k1\_complfld)\wedge((v10\_vectsp\_1\ X1\ k1\_complfld)\wedge((v11\_vectsp\_1\ X1\ k1\_complfld)\wedge(l1\_vectsp\_1\ X1\ k1\_complfld))))))))))\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))\wedge((v1\_bilinear\ X2\ k1\_complfld\ X0\ X1)\wedge((v2\_bilinear\ X2\ k1\_complfld\ X0\ X1)\wedge((v4\_bilinear\ X2\ k1\_complfld\ X0\ X1)\wedge((v2\_hermitan\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))))))))))\Rightarrow((v1\_funct\_1\ (k15\_bilinear\ k1\_complfld\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k15\_bilinear\ k1\_complfld\ X0\ X1\ X2)\ (k2\_zfmisc\_1\ (u1\_struct\_0\ (k6\_vectsp10\ k1\_complfld\ X0\ (k13\_bilinear\ k1\_complfld\ X0\ X1\ X2)))\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))\wedge((v1\_bilinear\ (k15\_bilinear\ k1\_complfld\ X0\ X1\ X2)\ k1\_complfld\ (k6\_vectsp10\ k1\_complfld\ X0\ (k13\_bilinear\ k1\_complfld\ X0\ X1\ X2))\ X1)\wedge((v2\_bilinear\ (k15\_bilinear\ k1\_complfld\ X0\ X1\ X2)\ k1\_complfld\ (k6\_vectsp10\ k1\_complfld\ X0\ (k13\_bilinear\ k1\_complfld\ X0\ X1\ X2))\ X1)\wedge((v4\_bilinear\ (k15\_bilinear\ k1\_complfld\ X0\ X1\ X2)\ k1\_complfld\ (k6\_vectsp10\ k1\_complfld\ X0\ (k13\_bilinear\ k1\_complfld\ X0\ X1\ X2))\ X1)\wedge(v2\_hermitan\ (k15\_bilinear\ k1\_complfld\ X0\ X1\ X2)\ (k6\_vectsp10\ k1\_complfld\ X0\ (k13\_bilinear\ k1\_complfld\ X0\ X1\ X2))\ X1))))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge(l1\_vectsp\_1\ X0\ k1\_complfld))\wedge(((\neg v2\_struct\_0\ X1)\wedge(l1\_vectsp\_1\ X1\ k1\_complfld))\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))\wedge((v2\_hermitan\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))))))))\Rightarrow((v1\_funct\_1\ (k3\_hermitan\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k3\_hermitan\ X0\ X1\ X2)\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))\wedge(v3\_bilinear\ (k3\_hermitan\ X0\ X1\ X2)\ k1\_complfld\ X0\ X1))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge(l1\_vectsp\_1\ X0\ k1\_complfld))\wedge(((\neg v2\_struct\_0\ X1)\wedge(l1\_vectsp\_1\ X1\ k1\_complfld))\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))\wedge((v1\_bilinear\ X2\ k1\_complfld\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))))))))\Rightarrow((v1\_funct\_1\ (k3\_hermitan\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k3\_hermitan\ X0\ X1\ X2)\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))\wedge(v1\_bilinear\ (k3\_hermitan\ X0\ X1\ X2)\ k1\_complfld\ X0\ X1))) \tag{7}$$

Assume the following.

$$(\neg v2\_struct\_0\ k1\_complfld)\wedge(v36\_algstr\_0\ k1\_complfld) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0))))))))\wedge(((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v8\_vectsp\_1\ X1\ X0)\wedge((v9\_vectsp\_1\ X1\ X0)\wedge((v10\_vectsp\_1\ X1\ X0)\wedge((v11\_vectsp\_1\ X1\ X0)\wedge(l1\_vectsp\_1\ X1\ X0))))))))))\wedge(m1\_vectsp\_4\ X2\ X0\ X1)))\Rightarrow((\neg v2\_struct\_0\ (k6\_vectsp10\ X0\ X1\ X2))\wedge((v13\_algstr\_0\ (k6\_vectsp10\ X0\ X1\ X2))\wedge((v2\_rlvect\_1\ (k6\_vectsp10\ X0\ X1\ X2))\wedge((v3\_rlvect\_1\ (k6\_vectsp10\ X0\ X1\ X2))\wedge((v4\_rlvect\_1\ (k6\_vectsp10\ X0\ X1\ X2))\wedge((v7\_vectsp\_1\ (k6\_vectsp10\ X0\ X1\ X2)\ X0)\wedge((v8\_vectsp\_1\ (k6\_vectsp10\ X0\ X1\ X2)\ X0)\wedge((v9\_vectsp\_1\ (k6\_vectsp10\ X0\ X1\ X2)\ X0)\wedge((v10\_vectsp\_1\ (k6\_vectsp10\ X0\ X1\ X2)\ X0)\wedge((v11\_vectsp\_1\ (k6\_vectsp10\ X0\ X1\ X2)\ X0)\wedge(l1\_vectsp\_1\ (k6\_vectsp10\ X0\ X1\ X2)\ X0))))))))))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge(l1\_vectsp\_1\ X0\ k1\_complfld))\wedge(((\neg v2\_struct\_0\ X1)\wedge(l1\_vectsp\_1\ X1\ k1\_complfld))\wedge((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld)))))))\Rightarrow((v1\_funct\_1\ (k3\_hermitan\ X0\ X1\ X2))\wedge((v1\_funct\_2\ (k3\_hermitan\ X0\ X1\ X2)\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))\wedge(m1\_subset\_1\ (k3\_hermitan\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld)))))) \tag{10}$$

Assume the following.

$$(v36\_algstr\_0\ k1\_complfld)\wedge(l6\_algstr\_0\ k1\_complfld) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0)))))))))\wedge(((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v8\_vectsp\_1\ X1\ X0)\wedge((v9\_vectsp\_1\ X1\ X0)\wedge((v10\_vectsp\_1\ X1\ X0)\wedge((v11\_vectsp\_1\ X1\ X0)\wedge(l1\_vectsp\_1\ X1\ X0)))))))))\wedge(((\neg v2\_struct\_0\ X2)\wedge(l1\_vectsp\_1\ X2\ X0))\wedge((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0))\wedge((v2\_bilinear\ X3\ X0\ X1\ X2)\wedge((v4\_bilinear\ X3\ X0\ X1\ X2)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0)))))))))\Rightarrow((v1\_funct\_1\ (k15\_bilinear\ X0\ X1\ X2\ X3))\wedge((v1\_funct\_2\ (k15\_bilinear\ X0\ X1\ X2\ X3)\ (k2\_zfmisc\_1\ (u1\_struct\_0\ (k6\_vectsp10\ X0\ X1\ (k13\_bilinear\ X0\ X1\ X2\ X3)))\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0))\wedge((v2\_bilinear\ (k15\_bilinear\ X0\ X1\ X2\ X3)\ X0\ (k6\_vectsp10\ X0\ X1\ (k13\_bilinear\ X0\ X1\ X2\ X3))\ X2)\wedge((v4\_bilinear\ (k15\_bilinear\ X0\ X1\ X2\ X3)\ X0\ (k6\_vectsp10\ X0\ X1\ (k13\_bilinear\ X0\ X1\ X2\ X3))\ X2)\wedge(m1\_subset\_1\ (k15\_bilinear\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ (k6\_vectsp10\ X0\ X1\ (k13\_bilinear\ X0\ X1\ X2\ X3)))\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0)))))))) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0)))))))))\wedge(((\neg v2\_struct\_0\ X1)\wedge(l1\_vectsp\_1\ X1\ X0))\wedge(((\neg v2\_struct\_0\ X2)\wedge((v13\_algstr\_0\ X2)\wedge((v2\_rlvect\_1\ X2)\wedge((v3\_rlvect\_1\ X2)\wedge((v4\_rlvect\_1\ X2)\wedge((v8\_vectsp\_1\ X2\ X0)\wedge((v9\_vectsp\_1\ X2\ X0)\wedge((v10\_vectsp\_1\ X2\ X0)\wedge((v11\_vectsp\_1\ X2\ X0)\wedge(l1\_vectsp\_1\ X2\ X0)))))))))\wedge((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0))\wedge((v1\_bilinear\ X3\ X0\ X1\ X2)\wedge((v3\_bilinear\ X3\ X0\ X1\ X2)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0)))))))))\Rightarrow((\neg v2\_struct\_0\ (k14\_bilinear\ X0\ X1\ X2\ X3))\wedge((v7\_vectsp\_1\ (k14\_bilinear\ X0\ X1\ X2\ X3)\ X0)\wedge(m1\_vectsp\_4\ (k14\_bilinear\ X0\ X1\ X2\ X3)\ X0\ X2))) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0)))))))))\wedge(((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v8\_vectsp\_1\ X1\ X0)\wedge((v9\_vectsp\_1\ X1\ X0)\wedge((v10\_vectsp\_1\ X1\ X0)\wedge((v11\_vectsp\_1\ X1\ X0)\wedge(l1\_vectsp\_1\ X1\ X0)))))))))\wedge(((\neg v2\_struct\_0\ X2)\wedge(l1\_vectsp\_1\ X2\ X0))\wedge((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0))\wedge((v2\_bilinear\ X3\ X0\ X1\ X2)\wedge((v4\_bilinear\ X3\ X0\ X1\ X2)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0)))))))))\Rightarrow((\neg v2\_struct\_0\ (k13\_bilinear\ X0\ X1\ X2\ X3))\wedge((v7\_vectsp\_1\ (k13\_bilinear\ X0\ X1\ X2\ X3)\ X0)\wedge(m1\_vectsp\_4\ (k13\_bilinear\ X0\ X1\ X2\ X3)\ X0\ X1))) \tag{14}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0)))))))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l1\_vectsp\_1\ X1\ X0))\Rightarrow(\forall X2.((\neg v2\_struct\_0\ X2)\wedge((v13\_algstr\_0\ X2)\wedge((v2\_rlvect\_1\ X2)\wedge((v3\_rlvect\_1\ X2)\wedge((v4\_rlvect\_1\ X2)\wedge((v8\_vectsp\_1\ X2\ X0)\wedge((v9\_vectsp\_1\ X2\ X0)\wedge((v10\_vectsp\_1\ X2\ X0)\wedge((v11\_vectsp\_1\ X2\ X0)\wedge(l1\_vectsp\_1\ X2\ X0)))))))))\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0))\wedge((v1\_bilinear\ X3\ X0\ X1\ X2)\wedge((v3\_bilinear\ X3\ X0\ X1\ X2)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2))\ (u1\_struct\_0\ X0)))))))\Rightarrow(\forall X4.((\neg v2\_struct\_0\ X4)\wedge((v7\_vectsp\_1\ X4\ X0)\wedge(m1\_vectsp\_4\ X4\ X0\ X2)))\Rightarrow((X4 = k14\_bilinear\ X0\ X1\ X2\ X3)\Leftrightarrow(u1\_struct\_0\ X4 = k11\_bilinear\ X0\ X1\ X2\ X3)))))) \tag{15}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v8\_vectsp\_1\ X0\ k1\_complfld)\wedge((v9\_vectsp\_1\ X0\ k1\_complfld)\wedge((v10\_vectsp\_1\ X0\ k1\_complfld)\wedge((v11\_vectsp\_1\ X0\ k1\_complfld)\wedge(l1\_vectsp\_1\ X0\ k1\_complfld))))))))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v8\_vectsp\_1\ X1\ k1\_complfld)\wedge((v9\_vectsp\_1\ X1\ k1\_complfld)\wedge((v10\_vectsp\_1\ X1\ k1\_complfld)\wedge((v11\_vectsp\_1\ X1\ k1\_complfld)\wedge(l1\_vectsp\_1\ X1\ k1\_complfld))))))))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))\wedge((v1\_bilinear\ X2\ k1\_complfld\ X0\ X1)\wedge((v2\_bilinear\ X2\ k1\_complfld\ X0\ X1)\wedge((v4\_bilinear\ X2\ k1\_complfld\ X0\ X1)\wedge((v2\_hermitan\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\ (u1\_struct\_0\ k1\_complfld))))))))))\Rightarrow(k14\_bilinear\ k1\_complfld\ X0\ X1\ (k3\_hermitan\ X0\ X1\ X2) = k14\_bilinear\ k1\_complfld\ (k6\_vectsp10\ k1\_complfld\ X0\ (k13\_bilinear\ k1\_complfld\ X0\ X1\ X2))\ X1\ (k3\_hermitan\ (k6\_vectsp10\ k1\_complfld\ X0\ (k13\_bilinear\ k1\_complfld\ X0\ X1\ X2))\ X1\ (k15\_bilinear\ k1\_complfld\ X0\ X1\ X2)))))$$