t29_bspace (TMcm9ypgJP1WtbBPRrsELZ5BE6twXe4isCG)

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Let $v8\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7\_bspace : \iota \Rightarrow \iota$ be given. Let $k2\_bspace : \iota$ 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 $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_group\_1 : \iota \Rightarrow \iota$ be given. Let $k8\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v5\_group\_1 : \iota \Rightarrow o$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ be given. Let $k6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $l1\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v4\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $l4\_algstr\_0 : \iota \Rightarrow o$ be given. Let $k5\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $l6\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l2\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l5\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l4\_struct\_0 : \iota \Rightarrow o$ be given. Let $l3\_struct\_0 : \iota \Rightarrow o$ be given. Let $l2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_vectsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v3\_group\_1 : \iota \Rightarrow o$ 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. Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ (k7\_bspace\ X0)))\Rightarrow(k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ (k1\_group\_1\ k2\_bspace)\ X1 = X1) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ k2\_bspace))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ k2\_bspace))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k7\_bspace\ X0)))\Rightarrow(k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ (k8\_group\_1\ k2\_bspace\ X1\ X2)\ X3 = k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ X1\ (k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ X2\ X3)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ k2\_bspace))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ k2\_bspace))\Rightarrow(\forall X3.\ (m1\_subset\_1\ X3\ (u1\_struct\_0\ (k7\_bspace\ X0)))\Rightarrow(k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ (k3\_rlvect\_1\ k2\_bspace\ X1\ X2)\ X3 = k1\_algstr\_0\ (k7\_bspace\ X0)\ (k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ X1\ X3)\ (k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ X2\ X3))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ k2\_bspace))\Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ (k7\_bspace\ X0)))\Rightarrow(\forall X3.\ (m1\_subset\_1\ X3\ (u1\_struct\_0\ (k7\_bspace\ X0)))\Rightarrow(k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ X1\ (k1\_algstr\_0\ (k7\_bspace\ X0)\ X2\ X3) = k1\_algstr\_0\ (k7\_bspace\ X0)\ (k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ X1\ X2)\ (k4\_vectsp\_1\ k2\_bspace\ (k7\_bspace\ X0)\ X1\ X3)))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge((v5\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0)))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow(k8\_group\_1\ X0\ X1\ X2 = k6\_algstr\_0\ X0\ X1\ X2) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v2\_rlvect\_1\ X0)\wedge(l1\_algstr\_0\ X0))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow(k3\_rlvect\_1\ X0\ X1\ X2 = k1\_algstr\_0\ X0\ X1\ X2) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge(l4\_algstr\_0\ X0)))\Rightarrow(k1\_group\_1\ X0 = k5\_struct\_0\ X0) \tag{7}$$

Assume the following.

$$\forall X0.(l6\_algstr\_0\ X0)\Rightarrow((l2\_algstr\_0\ X0)\wedge(l5\_algstr\_0\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.(l5\_algstr\_0\ X0)\Rightarrow((l4\_algstr\_0\ X0)\wedge(l4\_struct\_0\ X0)) \tag{9}$$

Assume the following.

$$\forall X0.(l4\_algstr\_0\ X0)\Rightarrow((l3\_struct\_0\ X0)\wedge(l3\_algstr\_0\ X0)) \tag{10}$$

Assume the following.

$$\forall X0.(l2\_algstr\_0\ X0)\Rightarrow((l2\_struct\_0\ X0)\wedge(l1\_algstr\_0\ X0)) \tag{11}$$

Assume the following.

$$\forall X0.(\neg v2\_struct\_0\ (k7\_bspace\ X0))\wedge(l1\_vectsp\_1\ (k7\_bspace\ X0)\ k2\_bspace) \tag{12}$$

Assume the following.

$$(\neg v2\_struct\_0\ k2\_bspace)\wedge((\neg v6\_struct\_0\ k2\_bspace)\wedge((v13\_algstr\_0\ k2\_bspace)\wedge((v33\_algstr\_0\ k2\_bspace)\wedge((v3\_group\_1\ k2\_bspace)\wedge((v5\_group\_1\ k2\_bspace)\wedge((v4\_vectsp\_1\ k2\_bspace)\wedge((v5\_vectsp\_1\ k2\_bspace)\wedge((v2\_rlvect\_1\ k2\_bspace)\wedge((v3\_rlvect\_1\ k2\_bspace)\wedge((v4\_rlvect\_1\ k2\_bspace)\wedge(l6\_algstr\_0\ k2\_bspace))))))))))) \tag{13}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l6\_algstr\_0\ X0))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l1\_vectsp\_1\ X1\ X0))\Rightarrow((v11\_vectsp\_1\ X1\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1))\Rightarrow(k4\_vectsp\_1\ X0\ X1\ (k5\_struct\_0\ X0)\ X2 = X2)))) \tag{14}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l6\_algstr\_0\ X0))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l1\_vectsp\_1\ X1\ X0))\Rightarrow((v10\_vectsp\_1\ X1\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X1))\Rightarrow(k4\_vectsp\_1\ X0\ X1\ (k6\_algstr\_0\ X0\ X2\ X3)\ X4 = k4\_vectsp\_1\ X0\ X1\ X2\ (k4\_vectsp\_1\ X0\ X1\ X3\ X4))))))) \tag{15}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l6\_algstr\_0\ X0))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l1\_vectsp\_1\ X1\ X0))\Rightarrow((v9\_vectsp\_1\ X1\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X1))\Rightarrow(k4\_vectsp\_1\ X0\ X1\ (k1\_algstr\_0\ X0\ X2\ X3)\ X4 = k1\_algstr\_0\ X1\ (k4\_vectsp\_1\ X0\ X1\ X2\ X4)\ (k4\_vectsp\_1\ X0\ X1\ X3\ X4))))))) \tag{16}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l6\_algstr\_0\ X0))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l1\_vectsp\_1\ X1\ X0))\Rightarrow((v8\_vectsp\_1\ X1\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X1))\Rightarrow(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X1))\Rightarrow(k4\_vectsp\_1\ X0\ X1\ X2\ (k1\_algstr\_0\ X1\ X3\ X4) = k1\_algstr\_0\ X1\ (k4\_vectsp\_1\ X0\ X1\ X2\ X3)\ (k4\_vectsp\_1\ X0\ X1\ X2\ X4))))))) \tag{17}$$

Theorem 1

$$\forall X0.(v8\_vectsp\_1\ (k7\_bspace\ X0)\ k2\_bspace)\wedge((v9\_vectsp\_1\ (k7\_bspace\ X0)\ k2\_bspace)\wedge((v10\_vectsp\_1\ (k7\_bspace\ X0)\ k2\_bspace)\wedge(v11\_vectsp\_1\ (k7\_bspace\ X0)\ k2\_bspace)))$$