t126_group_3 (TMYe8FuoLExK95j9qiXHMQRpQrMs7vfFhnP)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_group\_1 : \iota \Rightarrow o$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v15\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v1\_group\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_group\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14\_group\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_group\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge (l3\_algstr\_0\ X0)))) \Rightarrow (\forall X1.(m1\_group\_2\ X1\ X0) \Rightarrow (\forall X2.(m1\_group\_2\ X2\ X0) \Rightarrow ((\neg (k2\_group\_2\ X0\ (k8\_group\_2\ X0\ X1)\ (k8\_group\_2\ X0\ X2) = k2\_group\_2\ X0\ (k8\_group\_2\ X0\ X2)\ (k8\_group\_2\ X0\ X1)) \wedge (\forall X3.((v15\_algstr\_0\ X3) \wedge (m1\_group\_2\ X3\ X0)) \Rightarrow (u1\_struct\_0\ X3 \neq k2\_group\_2\ X0\ (k8\_group\_2\ X0\ X1)\ (k8\_group\_2\ X0\ X2)))) \wedge ((\exists X3.(m1\_group\_2\ X3\ X0) \wedge (u1\_struct\_0\ X3 = k2\_group\_2\ X0\ (k8\_group\_2\ X0\ X1)\ (k8\_group\_2\ X0\ X2))) \Rightarrow (k2\_group\_2\ X0\ (k8\_group\_2\ X0\ X1)\ (k8\_group\_2\ X0\ X2) = k2\_group\_2\ X0\ (k8\_group\_2\ X0\ X2)\ (k8\_group\_2\ X0\ X1))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l3\_algstr\_0\ X0)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((v3\_group\_1\ X0) \Rightarrow (k5\_group\_2\ X0\ X3\ (k2\_group\_2\ X0\ X1\ X2) = k2\_group\_2\ X0\ X1\ (k5\_group\_2\ X0\ X3\ X2))))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l3\_algstr\_0\ X0)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((v3\_group\_1\ X0) \Rightarrow (k2\_group\_2\ X0\ (k5\_group\_2\ X0\ X3\ X1)\ X2 = k2\_group\_2\ X0\ X1\ (k4\_group\_2\ X0\ X3\ X2))))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l3\_algstr\_0\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((v3\_group\_1\ X0)\Rightarrow(k2\_group\_2\ X0\ (k4\_group\_2\ X0\ X3\ X1)\ X2 = k4\_group\_2\ X0\ X3\ (k2\_group\_2\ X0\ X1\ X2))))))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.((v15\_algstr\_0\ X1)\wedge((v1\_group\_3\ X1\ X0)\wedge(m1\_group\_2\ X1\ X0)))\Rightarrow(\forall X2.((v15\_algstr\_0\ X2)\wedge((v1\_group\_3\ X2\ X0)\wedge(m1\_group\_2\ X2\ X0)))\Rightarrow(k2\_group\_2\ X0\ (k8\_group\_2\ X0\ X1)\ (k8\_group\_2\ X0\ X2) = k2\_group\_2\ X0\ (k8\_group\_2\ X0\ X2)\ (k8\_group\_2\ X0\ X1)))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.(m1\_group\_2\ X1\ X0)\Rightarrow(((v1\_group\_3\ X1\ X0)\wedge(m1\_group\_2\ X1\ X0))\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(k13\_group\_2\ X0\ X1\ X2 = k14\_group\_2\ X0\ X1\ X2)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\wedge(m1\_group\_2\ X1\ X0))\Rightarrow(m1\_subset\_1\ (k8\_group\_2\ X0\ X1)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.(m1\_group\_2\ X1\ X0)\Rightarrow(k8\_group\_2\ X0\ X1 = u1\_struct\_0\ X1)) \tag{8}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.(m1\_group\_2\ X1\ X0)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(k14\_group\_2\ X0\ X1\ X2 = k5\_group\_2\ X0\ X2\ (k8\_group\_2\ X0\ X1)))) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.(m1\_group\_2\ X1\ X0)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(k13\_group\_2\ X0\ X1\ X2 = k4\_group\_2\ X0\ X2\ (k8\_group\_2\ X0\ X1)))) \tag{10}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.((v15\_algstr\_0\ X1)\wedge((v1\_group\_3\ X1\ X0)\wedge(m1\_group\_2\ X1\ X0)))\Rightarrow(\forall X2.((v15\_algstr\_0\ X2)\wedge((v1\_group\_3\ X2\ X0)\wedge(m1\_group\_2\ X2\ X0)))\Rightarrow(\exists X3.((v15\_algstr\_0\ X3)\wedge((v1\_group\_3\ X3\ X0)\wedge(m1\_group\_2\ X3\ X0)))\wedge(u1\_struct\_0\ X3 = k2\_group\_2\ X0\ (k8\_group\_2\ X0\ X1)\ (k8\_group\_2\ X0\ X2)))))$$