t36_group_5 (TMJSi9yW78UTVerW5gyTLRzoFHB5fXMpuN9)

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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 $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k2\_group\_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_group\_1 : \iota \Rightarrow \iota$ be given. Let $k6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_group\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_group\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge (l3\_algstr\_0\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow ((k6\_algstr\_0\ X0\ (k6\_algstr\_0\ X0\ X1\ X2)\ (k2\_group\_1\ X0\ X2) = X1) \wedge ((k6\_algstr\_0\ X0\ (k6\_algstr\_0\ X0\ X1\ (k2\_group\_1\ X0\ X2))\ X2 = X1) \wedge ((k6\_algstr\_0\ X0\ (k6\_algstr\_0\ X0\ (k2\_group\_1\ X0\ X2)\ X2)\ X1 = X1) \wedge ((k6\_algstr\_0\ X0\ (k6\_algstr\_0\ X0\ X2\ (k2\_group\_1\ X0\ X2))\ X1 = X1) \wedge ((k6\_algstr\_0\ X0\ X1\ (k6\_algstr\_0\ X0\ X2\ (k2\_group\_1\ X0\ X2)) = X1) \wedge ((k6\_algstr\_0\ X0\ X1\ (k6\_algstr\_0\ X0\ (k2\_group\_1\ X0\ X2)\ X2) = X1) \wedge ((k6\_algstr\_0\ X0\ (k2\_group\_1\ X0\ X2)\ (k6\_algstr\_0\ X0\ X2\ X1) = X1) \wedge (k6\_algstr\_0\ X0\ X2\ (k6\_algstr\_0\ X0\ (k2\_group\_1\ X0\ X2)\ X1) = X1)))))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_group\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge (l3\_algstr\_0\ X0)))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (k2\_group\_5\ X0\ X1\ X2 = k6\_algstr\_0\ X0\ (k2\_group\_1\ X0\ (k6\_algstr\_0\ X0\ X2\ X1))\ (k6\_algstr\_0\ X0\ X1\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((l3\_algstr\_0\ X0) \wedge ((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \wedge (m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)))) \Rightarrow (m1\_subset\_1\ (k6\_algstr\_0\ X0\ X1\ X2)\ (u1\_struct\_0\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\wedge(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)))\Rightarrow(m1\_subset\_1\ (k2\_group\_1\ X0\ X1)\ (u1\_struct\_0\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(l3\_algstr\_0\ X0)\Rightarrow(m1\_subset\_1\ (k1\_group\_1\ X0)\ (u1\_struct\_0\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((X2 = k2\_group\_1\ X0\ X1)\Leftrightarrow((k6\_algstr\_0\ X0\ X1\ X2 = k1\_group\_1\ X0)\wedge(k6\_algstr\_0\ X0\ X2\ X1 = k1\_group\_1\ X0))))) \tag{6}$$

Assume the following.

$$\forall X0.(l3\_algstr\_0\ X0)\Rightarrow((v3\_group\_1\ X0)\Leftrightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(k6\_algstr\_0\ X0\ (k6\_algstr\_0\ X0\ X1\ X2)\ X3 = k6\_algstr\_0\ X0\ X1\ (k6\_algstr\_0\ X0\ X2\ X3)))))) \tag{7}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((k2\_group\_5\ X0\ X1\ X2 = k1\_group\_1\ X0)\Leftrightarrow(k6\_algstr\_0\ X0\ X1\ X2 = k6\_algstr\_0\ X0\ X2\ X1))))$$