t71_group_6 (TMa9vsKDBwJsiDQBh2arH63TPfJapUySG2G)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v15\_algstr\_0 : \iota \Rightarrow o$ 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 $r2\_group\_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_group\_6 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_group\_2 : \iota \Rightarrow \iota$ be given. Let $v3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8\_group\_6 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r1\_group\_6 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_group\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_group\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge (l3\_algstr\_0\ X0)))) \Rightarrow (v3\_funct\_2\ (k8\_group\_6\ X0\ (k6\_group\_2\ X0))\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k5\_group\_6\ X0\ (k6\_group\_2\ X0)))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge ((v15\_algstr\_0\ X0) \wedge ((v2\_group\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge (l3\_algstr\_0\ X0))))) \wedge ((\neg v2\_struct\_0\ X1) \wedge ((v15\_algstr\_0\ X1) \wedge ((v2\_group\_1\ X1) \wedge ((v3\_group\_1\ X1) \wedge (l3\_algstr\_0\ X1)))))) \Rightarrow ((r2\_group\_6\ X0\ X1) \Leftrightarrow (r1\_group\_6\ X0\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0) \wedge ((v2\_group\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge (l3\_algstr\_0\ X0)))) \wedge ((v1\_group\_3\ X1\ X0) \wedge (m1\_group\_2\ X1\ X0))) \Rightarrow ((v1\_funct\_1\ (k8\_group\_6\ X0\ X1)) \wedge ((v1\_funct\_2\ (k8\_group\_6\ X0\ X1)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k5\_group\_6\ X0\ X1))) \wedge (v1\_group\_6\ (k8\_group\_6\ X0\ X1)\ X0\ (k5\_group\_6\ X0\ X1)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\wedge((v1\_group\_3\ X1\ X0)\wedge(m1\_group\_2\ X1\ X0)))\Rightarrow((v2\_group\_1\ (k5\_group\_6\ X0\ X1))\wedge(v3\_group\_1\ (k5\_group\_6\ X0\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\wedge((v1\_group\_3\ X1\ X0)\wedge(m1\_group\_2\ X1\ X0)))\Rightarrow((\neg v2\_struct\_0\ (k5\_group\_6\ X0\ X1))\wedge(v15\_algstr\_0\ (k5\_group\_6\ X0\ X1))) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow((v15\_algstr\_0\ (k6\_group\_2\ X0))\wedge(v1\_group\_3\ (k6\_group\_2\ X0)\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\wedge((v1\_group\_3\ X1\ X0)\wedge(m1\_group\_2\ X1\ X0)))\Rightarrow((v1\_funct\_1\ (k8\_group\_6\ X0\ X1))\wedge((v1\_funct\_2\ (k8\_group\_6\ X0\ X1)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k5\_group\_6\ X0\ X1)))\wedge(m1\_subset\_1\ (k8\_group\_6\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k5\_group\_6\ X0\ X1))))))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow((v15\_algstr\_0\ (k6\_group\_2\ X0))\wedge(m1\_group\_2\ (k6\_group\_2\ X0)\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\wedge((v1\_group\_3\ X1\ X0)\wedge(m1\_group\_2\ X1\ X0)))\Rightarrow(l3\_algstr\_0\ (k5\_group\_6\ X0\ X1)) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_group\_1\ X1)\wedge((v3\_group\_1\ X1)\wedge(l3\_algstr\_0\ X1))))\Rightarrow((r1\_group\_6\ X0\ X1)\Leftrightarrow(\exists X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge(v1\_group\_6\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)))))))\wedge(v3\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1)))))) \tag{10}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v15\_algstr\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0)))))\Rightarrow(r2\_group\_6\ X0\ (k5\_group\_6\ X0\ (k6\_group\_2\ X0)))$$