t5_group_11 (TMayN6HgU6KfKoZbfq3J9bnSNkSFqzyX8dF)

October 27, 2020

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 $m1\_group\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $r1\_struct\_0 : \iota \Rightarrow \iota \Rightarrow o$ 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. Let $v1\_group\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ 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.

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

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_group\_1\ X0) \wedge ((v3\_group\_1\ X0) \wedge (l3\_algstr\_0\ X0)))) \Rightarrow (\forall X1.(m1\_group\_2\ X1\ X0) \Rightarrow (((v1\_group\_3\ X1\ X0) \wedge (m1\_group\_2\ X1\ X0)) \Leftrightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (r1\_tarski\ (k13\_group\_2\ X0\ X1\ X2)\ (k14\_group\_2\ X0\ X1\ X2))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_group\_1\ X1) \wedge ((v3\_group\_1\ X1) \wedge (l3\_algstr\_0\ X1)))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1)) \Rightarrow (\forall X3.(m1\_group\_2\ X3\ X1) \Rightarrow ((X0 \in k14\_group\_2\ X1\ X3\ X2) \Leftrightarrow (\exists X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X1)) \wedge ((X0 = k6\_algstr\_0\ X1\ X4\ X2) \wedge (r1\_struct\_0\ X3\ X4))))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_group\_1\ X1)\wedge((v3\_group\_1\ X1)\wedge(l3\_algstr\_0\ X1))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X1))\Rightarrow(\forall X3.(m1\_group\_2\ X3\ X1)\Rightarrow((X0\in k13\_group\_2\ X1\ X3\ X2)\Leftrightarrow(\exists X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X1))\wedge((X0=k6\_algstr\_0\ X1\ X2\ X4)\wedge(r1\_struct\_0\ X3\ X4))))))) \tag{4}$$

Assume the following.

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

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1)\Leftrightarrow(\forall X2.(X2\in X0)\Rightarrow(X2\in X1)) \tag{7}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.(m1\_group\_2\ X1\ X0)\Rightarrow((\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow((r1\_struct\_0\ X1\ X3)\Rightarrow(r1\_struct\_0\ X1\ (k6\_algstr\_0\ X0\ (k6\_algstr\_0\ X0\ X2\ X3)\ (k2\_group\_1\ X0\ X2))))))\Rightarrow(v1\_group\_3\ X1\ X0)))$$