t13_group_9 (TMKxDXSJMef9CmxsXFVtL4HSKJXFXL22bEM)

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 $v3\_group\_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_group\_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_group\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_group\_1\ X1)\wedge((v3\_group\_1\ X1)\wedge((v3\_group\_9\ X1\ X0)\wedge(l1\_group\_9\ X1\ X0)))))\Rightarrow(\forall X2.(m1\_group\_9\ X2\ X0\ X1)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X2))\Rightarrow(m1\_subset\_1\ X3\ (u1\_struct\_0\ X1)))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1)\Rightarrow(m1\_subset\_1\ X0\ X1) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_group\_1\ X1)\wedge((v3\_group\_1\ X1)\wedge((v3\_group\_9\ X1\ X0)\wedge(l1\_group\_9\ X1\ X0)))))\Rightarrow(\forall X2.(m1\_group\_9\ X2\ X0\ X1)\Rightarrow(\forall X3.(m1\_group\_9\ X3\ X0\ X1)\Rightarrow((r1\_tarski\ (u1\_struct\_0\ X2)\ (u1\_struct\_0\ X3))\Rightarrow(m1\_group\_9\ X2\ X0\ X3)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_group\_1\ X1)\wedge((v3\_group\_1\ X1)\wedge((v3\_group\_9\ X1\ X0)\wedge(l1\_group\_9\ X1\ X0)))))\Rightarrow(\forall X2.(m1\_group\_9\ X2\ X0\ X1)\Rightarrow((\neg v2\_struct\_0\ X2)\wedge((v2\_group\_1\ X2)\wedge((v3\_group\_1\ X2)\wedge((v3\_group\_9\ X2\ X0)\wedge(l1\_group\_9\ X2\ X0))))))) \tag{4}$$

Assume the following.

$$\forall X0.(l3\_algstr\_0\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(l1\_group\_9\ X1\ X0)\Rightarrow(l3\_algstr\_0\ X1) \tag{6}$$

Assume the following.

$$\forall X0.(l1\_struct\_0\ X0)\Rightarrow(\forall X1.(r1\_struct\_0\ X0\ X1)\Leftrightarrow (X1\in u1\_struct\_0\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1)\Leftrightarrow(\forall X2.(X2\in X0)\Rightarrow (X2\in X1)) \tag{8}$$

Theorem 1

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_group\_1\ X1)\wedge((v3\_group\_1\ X1)\wedge((v3\_group\_9\ X1\ X0)\wedge(l1\_group\_9\ X1\ X0)))))\Rightarrow(\forall X2.(m1\_group\_9\ X2\ X0\ X1)\Rightarrow(\forall X3.(m1\_group\_9\ X3\ X0\ X1)\Rightarrow((\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X1))\Rightarrow((r1\_struct\_0\ X2\ X4)\Rightarrow(r1\_struct\_0\ X3\ X4)))\Rightarrow(m1\_group\_9\ X2\ X0\ X3))))$$