t3_lattice8 (TMP-TxTND1yUt4YH8rboV35WhjwrHsjQVbpF)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v5\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_lattice5 : \iota \Rightarrow \iota$ be given. Let $v6\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_relat\_2 : \iota \Rightarrow o$ be given. Let $v8\_relat\_2 : \iota \Rightarrow o$ 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. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k6\_partfun1 : \iota \Rightarrow \iota$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $v1\_zfmisc\_1 : \iota \Rightarrow o$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $v3\_orders\_2 : \iota \Rightarrow o$ be given. Let $v4\_orders\_2 : \iota \Rightarrow o$ be given. Let $v5\_orders\_2 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_orders\_2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(X1 \in u1\_struct\_0\ (k1\_lattice5\ X0)) \Leftrightarrow ((v1\_partfun1\ X1\ X0) \wedge ((v3\_relat\_2\ X1) \wedge ((v8\_relat\_2\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v7\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (\neg v1\_zfmisc\_1\ (u1\_struct\_0\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.v1\_zfmisc\_1\ (k1\_tarski\ X0) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_struct\_0\ X0)) \Rightarrow (\neg v1\_xboole\_0\ (u1\_struct\_0\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (\forall X1.(m1\_yellow\_0\ X1\ X0) \Rightarrow (l1\_orders\_2\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{6}$$

Assume the following.

$$\forall X0.(v3\_orders\_2\ (k1\_lattice5\ X0))\wedge((v4\_orders\_2\ (k1\_lattice5\ X0))\wedge((v5\_orders\_2\ (k1\_lattice5\ X0))\wedge(l1\_orders\_2\ (k1\_lattice5\ X0)))) \tag{7}$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Leftrightarrow(\forall X1.\neg X1\in X0) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.(X1=k1\_tarski\ X0)\Leftrightarrow(\forall X2.(X2\in X1)\Leftrightarrow(X2=X0)) \tag{10}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.(l1\_orders\_2\ X1)\Rightarrow((m1\_yellow\_0\ X1\ X0)\Leftrightarrow((r1\_tarski\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X0))\wedge(r1\_tarski\ (u1\_orders\_2\ X1)\ (u1\_orders\_2\ X0))))) \tag{11}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v5\_yellow\_0\ X1\ (k1\_lattice5\ X0))\wedge((v6\_yellow\_0\ X1\ (k1\_lattice5\ X0))\wedge(m1\_yellow\_0\ X1\ (k1\_lattice5\ X0)))))\Rightarrow(\neg(\neg v7\_struct\_0\ X1)\wedge(\forall X2.((v1\_partfun1\ X2\ X0)\wedge((v3\_relat\_2\ X2)\wedge((v8\_relat\_2\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))))))\Rightarrow(\neg(X2\in u1\_struct\_0\ X1)\wedge(X2\neq k6\_partfun1\ X0)))))$$