t1_lattice6 (TMUNca6Vz1Zo13ZRaE51j9ftG5LVgoGDFm4)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v10\_lattices : \iota \Rightarrow o$ be given. Let $l3\_lattices : \iota \Rightarrow o$ be given. Let $v1\_lattice6 : \iota \Rightarrow o$ be given. Let $v2\_lattice6 : \iota \Rightarrow o$ be given. Let $k1\_lattice2 : \iota \Rightarrow \iota$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $k7\_lattice3 : \iota \Rightarrow \iota$ be given. Let $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $u1\_orders\_2 : \iota \Rightarrow \iota$ be given. Let $k6\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_lattice3 : \iota \Rightarrow \iota$ be given. Let $k3\_lattice3 : \iota \Rightarrow \iota$ be given. Let $v3\_lattices : \iota \Rightarrow o$ be given. Let $v1\_orders\_2 : \iota \Rightarrow o$ 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 $v1\_wellfnd1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (k7\_lattice3\ (k7\_lattice3\ X0) = g1\_orders\_2\ (u1\_struct\_0\ X0)\ (u1\_orders\_2\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_lattices\ X0) \wedge (l3\_lattices\ X0))) \Rightarrow ((k6\_lattice3\ (u1\_struct\_0\ X0)\ (k2\_lattice3\ X0) = k2\_lattice3\ (k1\_lattice2\ X0)) \wedge (k7\_lattice3\ (k3\_lattice3\ X0) = k3\_lattice3\ (k1\_lattice2\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_lattices\ X0) \wedge (l3\_lattices\ X0))) \Rightarrow ((v3\_lattices\ (k1\_lattice2\ X0)) \wedge (v10\_lattices\ (k1\_lattice2\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l3\_lattices\ X0)) \Rightarrow ((\neg v2\_struct\_0\ (k1\_lattice2\ X0)) \wedge (v3\_lattices\ (k1\_lattice2\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_lattices\ X0) \wedge (l3\_lattices\ X0))) \Rightarrow ((v1\_orders\_2\ (k3\_lattice3\ X0)) \wedge ((v3\_orders\_2\ (k3\_lattice3\ X0)) \wedge ((v4\_orders\_2\ (k3\_lattice3\ X0)) \wedge ((v5\_orders\_2\ (k3\_lattice3\ X0)) \wedge (l1\_orders\_2\ (k3\_lattice3\ X0)))))) \tag{5}$$

Assume the following.

$$\forall X0.(l3\_lattices\ X0)\Rightarrow((v3\_lattices\ (k1\_lattice2\ X0))\wedge (l3\_lattices\ (k1\_lattice2\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v10\_lattices\ X0)\wedge(l3\_lattices\ X0)))\Rightarrow((v2\_lattice6\ X0)\Leftrightarrow(v1\_wellfnd1\ (k7\_lattice3\ (k3\_lattice3\ X0)))) \tag{7}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v10\_lattices\ X0)\wedge(l3\_lattices\ X0)))\Rightarrow((v1\_lattice6\ X0)\Leftrightarrow(v1\_wellfnd1\ (k3\_lattice3\ X0))) \tag{8}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v1\_orders\_2\ X0)\Rightarrow(X0 = g1\_orders\_2\ (u1\_struct\_0\ X0)\ (u1\_orders\_2\ X0))) \tag{9}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v10\_lattices\ X0)\wedge(l3\_lattices\ X0)))\Rightarrow((v1\_lattice6\ X0)\Leftrightarrow(v2\_lattice6\ (k1\_lattice2\ X0)))$$