t27_openlatt (TMa9TFSt9uXHmU4nMbGeJ9WuxzzX4QcY2nN)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v10\_lattices : \iota \Rightarrow o$ be given. Let $v11\_lattices : \iota \Rightarrow o$ be given. Let $l3\_lattices : \iota \Rightarrow o$ be given. Let $r1\_filter\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k15\_openlatt : \iota \Rightarrow \iota$ be given. Let $k16\_openlatt : \iota \Rightarrow \iota$ be given. Let $k8\_openlatt : \iota \Rightarrow \iota$ 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 $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_lattice4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_lattices\ X0) \wedge ((v11\_lattices\ X0) \wedge (l3\_lattices\ X0)))) \Rightarrow (k16\_openlatt\ X0 = k8\_openlatt\ X0) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_lattices\ X0) \wedge ((v11\_lattices\ X0) \wedge (l3\_lattices\ X0)))) \Rightarrow ((v1\_funct\_1\ (k8\_openlatt\ X0)) \wedge ((v1\_funct\_2\ (k8\_openlatt\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k15\_openlatt\ X0))) \wedge (v3\_funct\_2\ (k8\_openlatt\ X0)\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ (k15\_openlatt\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_lattices\ X0) \wedge ((v11\_lattices\ X0) \wedge (l3\_lattices\ X0)))) \Rightarrow (m1\_lattice4\ (k16\_openlatt\ X0)\ X0\ (k15\_openlatt\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_lattices\ X0) \wedge ((v11\_lattices\ X0) \wedge (l3\_lattices\ X0)))) \Rightarrow ((\neg v2\_struct\_0\ (k15\_openlatt\ X0)) \wedge ((v10\_lattices\ (k15\_openlatt\ X0)) \wedge (l3\_lattices\ (k15\_openlatt\ X0)))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v10\_lattices\ X0)\wedge(l3\_lattices\ X0)))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v10\_lattices\ X1)\wedge(l3\_lattices\ X1)))\Rightarrow((r1\_filter\_1\ X0\ X1)\Leftrightarrow(\exists X2.(m1\_lattice4\ X2\ X0\ X1)\wedge(v3\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))) \tag{5}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v10\_lattices\ X0)\wedge((v11\_lattices\ X0)\wedge(l3\_lattices\ X0))))\Rightarrow(r1\_filter\_1\ X0\ (k15\_openlatt\ X0))$$