

t32_openlatt

(TMGLQS46LssNSho4GpH7upkyJyC8yVfcQqr)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $v1_lattice2 : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_openlatt : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_openlatt : \iota \Rightarrow \iota$ be given. Let $k17_openlatt : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g3_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $k5_openlatt : \iota \Rightarrow \iota$ be given. Let $k1_openlatt : \iota \Rightarrow \iota$ be given. Let $k4_openlatt : \iota \Rightarrow \iota$ be given. Let $v3_lattices : \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k7_openlatt : \iota \Rightarrow \iota$ be given. Let $u2_lattices : \iota \Rightarrow \iota$ be given. Let $u1_lattices : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (2)$$

Assume the following.

$$\forall X0. k3_tarski (k1_tarski X0) = X0 \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((v1_funct_1 X1) \wedge ((v1_funct_2 \\ & X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0) X0)))))) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 \\ & (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow (\forall X3. \forall X4. \forall X5. \\ & (g3_lattices X0 X1 X2 = g3_lattices X3 X4 X5) \Rightarrow ((X0 = X3) \wedge ((X1 = X4) \wedge \\ & (X2 = X5)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v1_lattice2 X0) \wedge (l3_lattices X0)))))) \Rightarrow ((\neg v2_struct_0 (k17_openlatt X0)) \wedge ((v1_pre_topc (k17_openlatt X0)) \wedge (v2_pre_topc (k17_openlatt X0)))) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow ((\neg v2_struct_0 (k6_openlatt X0)) \wedge ((v10_lattices (k6_openlatt X0)) \wedge (l3_lattices (k6_openlatt X0)))) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow ((v1_funct_1 (k5_openlatt X0)) \wedge (v1_funct_2 (k5_openlatt X0) (k2_zfmisc_1 (k1_openlatt X0) (k1_openlatt X0)) (k1_openlatt X0)) \wedge (m1_subset_1 (k5_openlatt X0) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 (k1_openlatt X0) (k1_openlatt X0)) (k1_openlatt X0)))))) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow ((v1_funct_1 (k4_openlatt X0)) \wedge ((v1_funct_2 (k4_openlatt X0) (k2_zfmisc_1 (k1_openlatt X0) (k1_openlatt X0)) (k1_openlatt X0)) \wedge (m1_subset_1 (k4_openlatt X0) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 (k1_openlatt X0) (k1_openlatt X0)) (k1_openlatt X0)))))) \quad (8)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v7_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v1_lattice2 X0) \wedge (l3_lattices X0)))))) \Rightarrow ((v1_pre_topc (k17_openlatt X0)) \wedge (l1_pre_topc (k17_openlatt X0))) \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0) X0)))))) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0) X0)))))) \Rightarrow ((v3_lattices (g3_lattices X0 X1 X2)) \wedge (l3_lattices (g3_lattices X0 X1 X2))) \quad (10)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow (k6_openlatt X0 = g3_lattices (k1_openlatt X0) (k4_openlatt X0) (k5_openlatt X0)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarSKI X0 X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow (X2 \in X1)) \quad (12)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(k1_openlatt X0 = u1_pre_topc X0) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((\neg v7_struct_0 X0)\wedge((v10_lattices \\ X0)\wedge((v1_lattice2 X0)\wedge(l3_lattices X0))))\Rightarrow(\forall X1.((v1_pre_topc \\ X1)\wedge(l1_pre_topc X1))\Rightarrow((X1 = k17_openlatt X0)\Leftrightarrow((u1_struct_0 \\ X1 = k7_openlatt X0)\wedge(u1_pre_topc X1 = ReplSep (toset (\lambda X2 : \iota. \\ m1_subset_1 X2 (k1_zfmisc_1 (k9_openlatt X0)))) (\lambda X2 : \iota. \\ True) (\lambda X2 : \iota.k3_tarSKI X2)))))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.(l3_lattices X0)\Rightarrow((v3_lattices X0)\Rightarrow(X0 = g3_lattices (u1_struct_0 X0) (u2_lattices X0) (u1_lattices X0))) \quad (15)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((\neg v7_struct_0 X0)\wedge((v10_lattices \\ X0)\wedge((v1_lattice2 X0)\wedge(l3_lattices X0))))\Rightarrow(r1_tarSKI (k9_openlatt \\ X0) (u1_struct_0 (k6_openlatt (k17_openlatt X0)))) \end{aligned}$$