

t20_lattice6 (TMNybKGx- UYAbqL352UMkGdR2kcvWsdUbaYC)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v8_struct_0 : \iota \Rightarrow o$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_lattices : \iota \Rightarrow \iota$ be given. Let $k6_lattices : \iota \Rightarrow \iota$ be given. Let $v3_lattice6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_waybel_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_lattice3 : \iota \Rightarrow \iota$ be given. Let $v4_lattice6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_waybel_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_lattice3 : \iota \Rightarrow o$ be given. Let $v2_lattice6 : \iota \Rightarrow o$ be given. Let $v1_lattice6 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v4_lattice3 \\ & X0) \wedge ((v2_lattice6 X0) \wedge (l3_lattices X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ & X1 (u1_struct_0 X0)) \Rightarrow ((X1 \neq k5_lattices X0) \Rightarrow ((v4_lattice6 X1 X0) \Leftrightarrow \\ & (v3_waybel_6 (k4_lattice3 X0 X1) (k3_lattice3 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge ((v4_lattice3 \\ & X0) \wedge ((v1_lattice6 X0) \wedge (l3_lattices X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ & X1 (u1_struct_0 X0)) \Rightarrow ((X1 \neq k6_lattices X0) \Rightarrow ((v3_lattice6 X1 X0) \Leftrightarrow \\ & (v2_waybel_6 (k4_lattice3 X0 X1) (k3_lattice3 X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l3_lattices X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v8_struct_0 \\ & X0) \wedge (v10_lattices X0))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v10_lattices \\ & X0) \wedge (v2_lattice6 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l3_lattices X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v8_struct_0 \\ & X0) \wedge (v10_lattices X0))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v10_lattices \\ & X0) \wedge (v1_lattice6 X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(l3_lattices\ X0)\Rightarrow(((\neg v2_struct_0\ X0)\wedge((v8_struct_0\ X0)\wedge(v10_lattices\ X0)))\Rightarrow((\neg v2_struct_0\ X0)\wedge((v10_lattices\ X0)\wedge(v4_lattice3\ X0)))) \quad (5)$$

Theorem 1

$$\forall X0.(((\neg v2_struct_0\ X0)\wedge((v8_struct_0\ X0)\wedge((v10_lattices\ X0)\wedge(l3_lattices\ X0))))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0))\Rightarrow(\neg(X1\neq k5_lattices\ X0)\wedge((X1\neq k6_lattices\ X0)\wedge(\neg((v3_lattice6\ X1\ X0)\Rightarrow(v2_waybel_6\ (k4_lattice3\ X0\ X1)\ (k3_lattice3\ X0))))\wedge((v2_waybel_6\ (k4_lattice3\ X0\ X1)\ (k3_lattice3\ X0))\Rightarrow(v3_lattice6\ X1\ X0))\wedge(((v4_lattice6\ X1\ X0)\Rightarrow(v3_waybel_6\ (k4_lattice3\ X0\ X1)\ (k3_lattice3\ X0))))\wedge((v3_waybel_6\ (k4_lattice3\ X0\ X1)\ (k3_lattice3\ X0))\Rightarrow(v4_lattice6\ X1\ X0))))))))))$$