

t50_yellow_0
(TMJx8keknSbtXKmRztC25q5LwsD22CR4b1k)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $r1_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r2_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & \forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (((r2_lattice3 \\ & X0 X1 X2) \Rightarrow (r2_lattice3 X0 (k3_xboole_0 X1 (u1_struct_0 X0)) X2)) \wedge \\ & (((r2_lattice3 X0 (k3_xboole_0 X1 (u1_struct_0 X0)) X2) \Rightarrow (r2_lattice3 \\ & X0 X1 X2)) \wedge (((r1_lattice3 X0 X1 X2) \Rightarrow (r1_lattice3 X0 (k3_xboole_0 \\ & X1 (u1_struct_0 X0)) X2)) \wedge ((r1_lattice3 X0 (k3_xboole_0 X1 (u1_struct_0 \\ & X0)) X2) \Rightarrow (r1_lattice3 X0 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & \forall X2.((\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((\\ & r1_lattice3 X0 X1 X3) \Leftrightarrow (r1_lattice3 X0 X2 X3))) \wedge (r2_yellow_0 X0 \\ & X1)) \Rightarrow (r2_yellow_0 X0 X2)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & \forall X2.((\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((\\ & r2_lattice3 X0 X1 X3) \Leftrightarrow (r2_lattice3 X0 X2 X3))) \wedge (r1_yellow_0 X0 \\ & X1)) \Rightarrow (r1_yellow_0 X0 X2)) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((r1_yellow_0 X0 X1) \Rightarrow (r1_yellow_0 X0 (k3_xboole_0 X1 (u1_struct_0 \\ & X0)))) \wedge (((r1_yellow_0 X0 (k3_xboole_0 X1 (u1_struct_0 X0))) \Rightarrow \\ & (r1_yellow_0 X0 X1)) \wedge (((r2_yellow_0 X0 X1) \Rightarrow (r2_yellow_0 X0 (k3_xboole_0 \\ & X1 (u1_struct_0 X0)))) \wedge ((r2_yellow_0 X0 (k3_xboole_0 X1 (u1_struct_0 \\ & X0))) \Rightarrow (r2_yellow_0 X0 X1)))))) \end{aligned}$$