

t51_yellow_0 (TMaHTFiQnyWTi- HtM6jtDBD3S8x1Kvwm23pj)

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 $k1_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

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

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\
& \quad \forall X2. ((r1_yellow_0 X0 X1) \wedge (\forall X3. (m1_subset_1 X3 (\\
& \quad u1_struct_0 X0)) \Rightarrow ((r2_lattice3 X0 X1 X3) \Leftrightarrow (r2_lattice3 X0 X2 X3)))) \Rightarrow \\
& \quad (k1_yellow_0 X0 X1 = k1_yellow_0 X0 X2))
\end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\
& \quad ((r1_yellow_0 X0 X1) \vee (r1_yellow_0 X0 (k3_xboole_0 X1 (u1_struct_0 \\
& \quad X0)))) \Rightarrow (k1_yellow_0 X0 X1 = k1_yellow_0 X0 (k3_xboole_0 X1 (u1_struct_0 \\
& \quad X0))))
\end{aligned}$$