

l59_waybel23 (TMYmjr- wfvUCS1GwAupvTrezSxZaUQMf1LGx)

October 27, 2020

Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $v1_yellow_0 : \iota \Rightarrow o$ be given. Let $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v2_lattice3 : \iota \Rightarrow o$ be given. Let $v3_waybel_3 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r3_orders_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_waybel_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v24_waybel_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_waybel_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_waybel_3 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\
 & X0) \wedge (l1_orders_2 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
 & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\
 & (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\
 & (u1_struct_0 X0)) \Rightarrow (((r3_orders_2 X0 X1 X2) \wedge ((r1_waybel_3 X0 X2 \\
 & X3) \wedge (r3_orders_2 X0 X3 X4)) \Rightarrow (r1_waybel_3 X0 X1 X4))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
 & X0) \wedge ((v2_lattice3 X0) \wedge ((v24_waybel_0 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\
 & ((\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((\neg v1_xboole_0 \\
 & (k1_waybel_3 X0 X1)) \wedge (v1_waybel_0 (k1_waybel_3 X0 X1) X0))) \Rightarrow (\\
 & (v2_waybel_3 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
 & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\neg(\neg r3_orders_2 \\
 & X0 X1 X2) \wedge (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\neg(r1_waybel_3 \\
 & X0 X3 X1) \wedge (\neg r3_orders_2 X0 X3 X2))))))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1.(((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge \\
 & ((v3_waybel_3 X0) \wedge (l1_orders_2 X0)))) \wedge (m1_subset_1 X1 (u1_struct_0 \\
 & X0))) \Rightarrow ((\neg v1_xboole_0 (k1_waybel_3 X0 X1)) \wedge (v1_waybel_0 (k1_waybel_3 \\
 & X0 X1) X0))
 \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge (v3_waybel_3 X0))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v24_waybel_0 X0) \wedge (v2_waybel_3 X0)))))) \quad (4)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v1_lattice3 X0) \Rightarrow (\neg v2_struct_0 X0)) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge ((v1_yellow_0 X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge ((v3_waybel_3 X0) \wedge (l1_orders_2 X0)))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\neg(\neg r3_orders_2 X0 X3 X2) \wedge (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\neg(X4 \in X1) \wedge ((\neg r3_orders_2 X0 X4 X2) \wedge (r3_orders_2 X0 X4 X3)))))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\neg(\neg r3_orders_2 X0 X3 X2) \wedge (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\neg(X4 \in X1) \wedge ((\neg r3_orders_2 X0 X4 X2) \wedge (r1_waybel_3 X0 X4 X3)))))))))) \end{aligned}$$