

l2_waybel_5

(TMYt14mHchn1LeJ317kDXjJ167Cw9UqmYjV)

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 $v2_lattice3 : \iota \Rightarrow o$ be given. Let $v24_waybel_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ 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 $v12_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r3_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_waybel_3 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $r2_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_waybel_3 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v5_orders_2 \\ X0) \wedge (l1_orders_2 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (r2_lattice3 X0 (k1_waybel_3 X0 X1) X1)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v5_orders_2 \\ X0) \wedge (l1_orders_2 X0)))) \Rightarrow ((v24_waybel_0 X0) \Leftrightarrow (\forall X1.((\neg \\ v1_xboole_0 X1) \wedge ((v1_waybel_0 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ (u1_struct_0 X0)))))) \Rightarrow (r1_yellow_0 X0 X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v3_orders_2 \\ X0) \wedge (l1_orders_2 X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (\\ m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow ((r3_orders_2 X0 X1 X2) \Leftrightarrow (r1_orders_2 \\ X0 X1 X2)) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (l1_orders_2 X0) \Rightarrow (m1_subset_1 (k1_yellow_0 \\ X0 X1) (u1_struct_0 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\ X2 (u1_struct_0 X0) \Rightarrow ((r1_yellow_0 X0 X1) \Rightarrow ((X2 = k1_yellow_0 X0 \\ X1) \Leftrightarrow ((r2_lattice3 X0 X1 X2) \wedge (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ X0) \Rightarrow ((r2_lattice3 X0 X1 X3) \Rightarrow (r1_orders_2 X0 X2 X3))))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge (l1_orders_2 \\ X0))) \Rightarrow ((v3_waybel_3 X0) \Leftrightarrow ((\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0) \Rightarrow ((\neg v1_xboole_0 (k1_waybel_3 X0 X1) \wedge (v1_waybel_0 (k1_waybel_3 \\ X0 X1) X0))) \wedge ((v24_waybel_0 X0) \wedge (v2_waybel_3 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge (l1_orders_2 \\ X0))) \Rightarrow ((v2_waybel_3 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ X0) \Rightarrow (X1 = k1_yellow_0 X0 (k1_waybel_3 X0 X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow ((v5_orders_2 X0) \Leftrightarrow (\forall X1.(\\ m1_subset_1 X1 (u1_struct_0 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ (u1_struct_0 X0) \Rightarrow ((r1_orders_2 X0 X1 X2) \wedge (r1_orders_2 X0 X2 \\ X1) \Rightarrow (X1 = X2)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v2_lattice3 X0) \Rightarrow (\neg v2_struct_0 X0)) \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ X0) \wedge ((v2_lattice3 X0) \wedge ((v24_waybel_0 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\ ((\forall X1.(m1_subset_1 X1 (u1_struct_0 X0) \Rightarrow (((\neg v1_xboole_0 \\ (k1_waybel_3 X0 X1) \wedge ((v1_waybel_0 (k1_waybel_3 X0 X1) X0) \wedge ((\\ v12_waybel_0 (k1_waybel_3 X0 X1) X0) \wedge (m1_subset_1 (k1_waybel_3 \\ X0 X1) (k1_zfmisc_1 (u1_struct_0 X0)))))) \wedge ((r3_orders_2 X0 X1 \\ (k1_yellow_0 X0 (k1_waybel_3 X0 X1))) \wedge (\forall X2.((\neg v1_xboole_0 \\ X2) \wedge ((v1_waybel_0 X2 X0) \wedge ((v12_waybel_0 X2 X0) \wedge (m1_subset_1 \\ X2 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow ((r3_orders_2 X0 X1 (k1_yellow_0 \\ X0 X2) \Rightarrow (r1_tarski (k1_waybel_3 X0 X1) X2)))))) \Rightarrow (v3_waybel_3 \\ X0)) \end{aligned}$$