

t33_waybel13

(TMJW7jLaAaRRy69kzZ127azBqMB3ziCGQ1h)

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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 $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v1_yellow_0 : \iota \Rightarrow o$ be given. Let $v3_waybel_3 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v17_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_yellow_2 : \iota \Rightarrow \iota$ be given. Let $k2_yellow_1 : \iota \Rightarrow \iota$ be given. Let $k7_waybel_0 : \iota \Rightarrow \iota$ be given. Let $v18_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_lattice3 : \iota \Rightarrow o$ be given. Let $v3_waybel_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_waybel_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_yellow_2 : \iota \Rightarrow \iota$ be given. Let $v4_waybel_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $v24_waybel_0 : \iota \Rightarrow o$ be given. Let $v2_waybel_3 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ &X0) \wedge ((v5_orders_2 X0) \wedge ((v3_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\ &((v3_waybel_1 (k1_waybel_1 X0 (k2_yellow_1 (k7_waybel_0 X0)) \\ &(k3_yellow_2 X0) (k2_yellow_2 X0)) X0 (k2_yellow_1 (k7_waybel_0 \\ &X0))) \wedge (v18_waybel_0 (k2_yellow_2 X0) (k2_yellow_1 (k7_waybel_0 \\ &X0)) X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ &X0) \wedge ((v1_lattice3 X0) \wedge ((v1_yellow_0 X0) \wedge ((v3_waybel_3 X0) \wedge \\ &(l1_orders_2 X0))))))) \Rightarrow (v4_waybel_1 (k2_yellow_2 X0) (k2_yellow_1 \\ &(k7_waybel_0 X0)) X0) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((\neg \\ v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 \\ X1) \wedge (l1_orders_2 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\ X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((v4_waybel_1 \\ X2 X0 X1) \Rightarrow (v17_waybel_0 X2 X0 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow ((\neg v2_struct_0 (k2_yellow_1 X0)) \wedge (v1_orders_2 (k2_yellow_1 X0))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_orders_2 (k2_yellow_1 X0)) \wedge ((v3_orders_2 (k2_yellow_1 X0)) \wedge ((v4_orders_2 (k2_yellow_1 X0)) \wedge (v5_orders_2 (k2_yellow_1 X0)))) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge (l1_orders_2 X0)))) \Rightarrow (\neg v1_xboole_0 (k7_waybel_0 X0)) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow ((v1_funct_1 (k2_yellow_2 \\ X0)) \wedge ((v1_funct_2 (k2_yellow_2 X0) (u1_struct_0 (k2_yellow_1 \\ (k7_waybel_0 X0)) (u1_struct_0 X0)) \wedge (m1_subset_1 (k2_yellow_2 \\ X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (k2_yellow_1 (k7_waybel_0 \\ X0)) (u1_struct_0 X0)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.(v1_orders_2 (k2_yellow_1 X0)) \wedge (l1_orders_2 (k2_yellow_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge (v3_waybel_3 X0))) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v24_waybel_0 X0) \wedge (v2_waybel_3 X0)))))) \quad (9)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v1_lattice3 X0) \Rightarrow (\neg v2_struct_0 X0)) \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_orders_2 X0) \Rightarrow & (((\neg v2_struct_0 X0) \wedge ((v3_orders_2 \\ & X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge ((v1_lattice3 X0) \wedge \\ & ((v1_yellow_0 X0) \wedge (v24_waybel_0 X0))))))) \Rightarrow ((\neg v2_struct_0 X0) \wedge \\ & ((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge (v3_lattice3 \\ & X0)))))) \end{aligned} \tag{11}$$

Theorem 1

$$\begin{aligned} \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v1_lattice3 X0) \wedge ((v1_yellow_0 X0) \wedge ((v3_waybel_3 X0) \wedge \\ & (l1_orders_2 X0))))))) \Rightarrow ((v17_waybel_0 (k2_yellow_2 X0) (k2_yellow_1 \\ & (k7_waybel_0 X0)) X0) \wedge (v18_waybel_0 (k2_yellow_2 X0) (k2_yellow_1 \\ & (k7_waybel_0 X0)) X0)) \end{aligned}$$