

t27_waybel_8

(TMZx8afnCcdXn8pQxoyjxQA9CGhnVwbwN3T)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_yellow_1 : \iota \Rightarrow \iota$ be given. Let $r1_waybel_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ 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 $v3_orders_2 : \iota \Rightarrow o$ 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 $v2_lattice3 : \iota \Rightarrow o$ be given. Let $v3_lattice3 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $g1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_lattices : \iota \Rightarrow o$ be given. Let $k1_lattice3 : \iota \Rightarrow \iota$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $k3_lattice3 : \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $k2_lattice3 : \iota \Rightarrow \iota$ be given. Let $k1_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_lattices : \iota \Rightarrow \iota$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_lattices : \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (u1_struct_0 (k3_yellow_1 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k3_yellow_1 X0))) \Rightarrow ((r3_orders_2 (k3_yellow_1 X0) X1 X2) \Leftrightarrow (r1_tarski X1 X2))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 (k3_yellow_1 X0)))) \Rightarrow (k1_yellow_0 (k3_yellow_1 X0) X1 = k3_tarski X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge ((v3_lattice3 X0) \wedge \\ & (l1_orders_2 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((\forall X3. \\ & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0)) \Rightarrow (\neg(r3_orders_2 \\ & X0 X2 (k1_yellow_0 X0 X3)) \wedge (\forall X4.((v1_finset_1 X4) \wedge (m1_subset_1 \\ & X4 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow (\neg(r1_tarski X4 X3) \wedge (r3_orders_2 \\ & X0 X1 (k1_yellow_0 X0 X4)))))) \Rightarrow (r1_waybel_3 X0 X1 X2)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge ((v3_lattice3 X0) \wedge \\ & (l1_orders_2 X0)))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r1_waybel_3 \\ & X0 X1 X2) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\ & X0)) \Rightarrow (\neg(r3_orders_2 X0 X2 (k1_yellow_0 X0 X3)) \wedge (\forall X4. \\ & (v1_finset_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (u1_struct_0 X0)))) \Rightarrow \\ & (\neg(r1_tarski X4 X3) \wedge (r3_orders_2 X0 X1 (k1_yellow_0 X0 X4)))))))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.k9_setfam_1 X0 = k1_zfmisc_1 X0 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (k5_setfam_1 X0 X1 = k3_tarski X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \Rightarrow (\forall X2.\forall X3.(g1_orders_2 X0 X1 = g1_orders_2 X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \quad (9)$$

Assume the following.

$$\forall X0.(v1_orders_2 (k3_yellow_1 X0)) \wedge (v3_lattice3 (k3_yellow_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(\neg v2_struct_0 (k3_yellow_1 X0)) \wedge ((v1_orders_2 (k3_yellow_1 X0)) \wedge ((v3_orders_2 (k3_yellow_1 X0)) \wedge ((v4_orders_2 (k3_yellow_1 X0)) \wedge (v5_orders_2 (k3_yellow_1 X0)))))) \quad (11)$$

Assume the following.

$$\forall X0.(v3_lattices (k1_lattice3 X0)) \wedge (v10_lattices (k1_lattice3 X0)) \quad (12)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \Rightarrow ((v1_orders_2 (k3_lattice3 X0)) \wedge ((v3_orders_2 (k3_lattice3 X0)) \wedge ((v4_orders_2 (k3_lattice3 X0)) \wedge ((v5_orders_2 (k3_lattice3 X0)) \wedge ((v1_lattice3 (k3_lattice3 X0)) \wedge (v2_lattice3 (k3_lattice3 X0)))))))) \quad (13)$$

Assume the following.

$$\forall X0.(\neg v2_struct_0 (k1_lattice3 X0)) \wedge (v3_lattices (k1_lattice3 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (m1_subset_1 (u1_orders_2 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \quad (15)$$

Assume the following.

$$\forall X0.(v1_orders_2 (k3_yellow_1 X0)) \wedge (l1_orders_2 (k3_yellow_1 X0)) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(l1_orders_2 X0) \Rightarrow (m1_subset_1 (k1_yellow_0 X0 X1) (u1_struct_0 X0)) \quad (17)$$

Assume the following.

$$\forall X0.(v3_lattices (k1_lattice3 X0)) \wedge (l3_lattices (k1_lattice3 X0)) \quad (18)$$

Assume the following.

$$\forall X0.k3_yellow_1 X0 = k3_lattice3 (k1_lattice3 X0) \quad (19)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \Rightarrow (k3_lattice3 X0 = g1_orders_2 (u1_struct_0 X0) (k2_lattice3 X0)) \quad (20)$$

Assume the following.

$$\forall X0.\forall X1.((v3_lattices X1) \wedge (l3_lattices X1)) \Rightarrow ((X1 = k1_lattice3 X0) \Leftrightarrow ((u1_struct_0 X1 = k9_setfam_1 X0) \wedge (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 X0)) \Rightarrow ((k1_binop_1 (u2_lattices X1) X2 X3 = k4_subset_1 X0 X2 X3) \wedge (k1_binop_1 (u1_lattices X1) X2 X3 = k9_subset_1 X0 X2 X3))))))) \quad (21)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v1_orders_2 X0) \Rightarrow (X0 = g1_orders_2 (u1_struct_0 X0) (u1_orders_2 X0))) \quad (22)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (u1_struct_0 (k3_yellow_1 \\ & X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 (k3_yellow_1 \\ & X0))) \Rightarrow ((r1_waybel_3 (k3_yellow_1 X0) X1 X2) \Leftrightarrow (\forall X3. (m1_subset_1 \\ & X3 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (\neg(r1_tarski X2 (k5_setfam_1 \\ & X0 X3)) \wedge (\forall X4. ((v1_finset_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\ & X3)))) \Rightarrow (\neg r1_tarski X1 (k3_tarski X4)))))) \end{aligned}$$