

t16_yellow_2
(TMJ3vph3xuyS3sPX5c6HKAmNiAyk51mvYaK)

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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 $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v22_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_orders_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $r4_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ & X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((\neg \\ & v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 \\ & X1) \wedge (l1_orders_2 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((\forall X3. \\ & ((\neg v1_xboole_0 X3) \wedge ((v1_waybel_0 X3 X0) \wedge ((v12_waybel_0 X3 X0) \wedge \\ & (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow (r4_waybel_0 \\ & X0 X1 X2 X3)) \Rightarrow (v5_orders_3 X2 X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \Rightarrow (\forall X2.((v1_funct_1 \\ & X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\ & ((v22_waybel_0 X2 X0 X1) \Leftrightarrow (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X1)) \Rightarrow ((v1_waybel_0 X3 X0) \Rightarrow ((v1_xboole_0 X3) \vee \\ & r4_waybel_0 X0 X1 X2 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v1_lattice3 X0) \Rightarrow (\neg v2_struct_0 X0)) \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v3_orders_2\ X0) \wedge ((v4_orders_2\ X0) \wedge ((v5_orders_2 \\ & \quad X0) \wedge ((v1_lattice3\ X0) \wedge (l1_orders_2\ X0))))) \Rightarrow (\forall X1.((v1_funct_1 \\ & \quad X1) \wedge ((v1_funct_2\ X1\ (u1_struct_0\ X0)\ (u1_struct_0\ X0)) \wedge (m1_subset_1 \\ & \quad X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ (u1_struct_0\ X0))))) \Rightarrow \\ & \quad ((v22_waybel_0\ X1\ X0\ X0) \Rightarrow (v5_orders_3\ X1\ X0\ X0))) \end{aligned}$$