

t1_waybel_6
(TMSMJGEb7rDcx9Us1T6F7W2D9EHfzVLut8i)

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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 $v2_lattice3 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $v19_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
& X0) \wedge ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((v3_orders_2 \\
& X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 X1) \wedge ((v2_lattice3 X1) \wedge \\
& (l1_orders_2 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\
& X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\
& (u1_struct_0 X0)) \Rightarrow ((r3_waybel_0 X0 X1 X2 (k7_domain_1 (u1_struct_0 \\
& X0) X3 X4)) \Leftrightarrow (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 X1) X2 (k12_lattice3 \\
& X0 X3 X4) = k12_lattice3 X1 (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 \\
& X1) X2 X3) (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 X1) X2 X4)))))) \\
& \tag{1}
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\
& ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \Rightarrow (\forall X2.((v1_funct_1 \\
& X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 \\
& X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\
& ((v19_waybel_0 X2 X0 X1) \Leftrightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (r3_waybel_0 \\
& X0 X1 X2 (k7_domain_1 (u1_struct_0 X0) X3 X4)))))) \\
& \tag{2}
\end{aligned}$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow ((v2_lattice3 X0) \Rightarrow (\neg v2_struct_0 X0)) \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((v3_orders_2 \\ & X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 X1) \wedge ((v2_lattice3 X1) \wedge \\ & (l1_orders_2 X1)))))) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((v19_waybel_0 \\ & X2 X0 X1) \Leftrightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4. \\ & (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (k3_funct_2 (u1_struct_0 X0) \\ & (u1_struct_0 X1) X2 (k12_lattice3 X0 X3 X4) = k12_lattice3 X1 (k3_funct_2 \\ & (u1_struct_0 X0) (u1_struct_0 X1) X2 X3) (k3_funct_2 (u1_struct_0 \\ & X0) (u1_struct_0 X1) X2 X4)))))) \end{aligned}$$