

t36_waybel27

(TMZWL2mcmu2d9n7DwVtDV6nc8YKRVgQ5uMr)

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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 $v2_lattice3 : \iota \Rightarrow o$ be given. Let $v3_lattice3 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $r5_waybel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_waybel27 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v23_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_waybel27 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
 & X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge ((v3_lattice3 X0) \wedge \\
 & (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((v3_orders_2 X1) \wedge ((v4_orders_2 \\
 & X1) \wedge ((v5_orders_2 X1) \wedge ((v1_lattice3 X1) \wedge ((v2_lattice3 X1) \wedge \\
 & ((v3_lattice3 X1) \wedge (l1_orders_2 X1)))))) \Rightarrow (\forall X2.((v3_orders_2 \\
 & X2) \wedge ((v4_orders_2 X2) \wedge ((v5_orders_2 X2) \wedge ((v1_lattice3 X2) \wedge \\
 & ((v2_lattice3 X2) \wedge ((v3_lattice3 X2) \wedge (l1_orders_2 X2)))))) \Rightarrow \\
 & (\forall X3.((v3_orders_2 X3) \wedge ((v4_orders_2 X3) \wedge ((v5_orders_2 \\
 & X3) \wedge ((v1_lattice3 X3) \wedge ((v2_lattice3 X3) \wedge ((v3_lattice3 X3) \wedge \\
 & (l1_orders_2 X3)))))) \Rightarrow (\forall X4.((v1_funct_1 X4) \wedge ((v1_funct_2 \\
 & X4 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\
 & (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow (\forall X5. \\
 & ((v1_funct_1 X5) \wedge ((v1_funct_2 X5 (u1_struct_0 X2) (u1_struct_0 \\
 & X3)) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\
 & X2) (u1_struct_0 X3)))))) \Rightarrow ((v23_waybel_0 X4 X0 X1) \wedge (v23_waybel_0 \\
 & X5 X2 X3)) \Rightarrow (v23_waybel_0 (k4_waybel27 X0 X1 X2 X3 X4 X5) (k2_waybel27 \\
 & X1 X2) (k2_waybel27 X0 X3))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\
& (((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge((v5_orders_2 X0)\wedge(l1_orders_2 \\
& X0))))\wedge(((\neg v2_struct_0 X1)\wedge((v3_orders_2 X1)\wedge((v5_orders_2 \\
& X1)\wedge(l1_orders_2 X1))))\wedge(((\neg v2_struct_0 X2)\wedge((v3_orders_2 \\
& X2)\wedge((v5_orders_2 X2)\wedge(l1_orders_2 X2))))\wedge(((\neg v2_struct_0 \\
& X3)\wedge((v3_orders_2 X3)\wedge((v5_orders_2 X3)\wedge(l1_orders_2 X3))))\wedge \\
& (((v1_funct_1 X4)\wedge((v1_funct_2 X4 (u1_struct_0 X0) (u1_struct_0 \\
& X1))\wedge(m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\
& X0) (u1_struct_0 X1))))))\wedge((v1_funct_1 X5)\wedge((v1_funct_2 X5 (\\
& u1_struct_0 X2) (u1_struct_0 X3))\wedge(m1_subset_1 X5 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X2) (u1_struct_0 X3))))))))))\Rightarrow((\\
& v1_funct_1 (k4_waybel27 X0 X1 X2 X3 X4 X5))\wedge((v1_funct_2 (k4_waybel27 \\
& X0 X1 X2 X3 X4 X5) (u1_struct_0 (k2_waybel27 X1 X2)) (u1_struct_0 \\
& (k2_waybel27 X0 X3)))\wedge(m1_subset_1 (k4_waybel27 X0 X1 X2 X3 X4 X5) \\
& (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (k2_waybel27 X1 X2)) (\\
& u1_struct_0 (k2_waybel27 X0 X3))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(((\neg v2_struct_0 X0)\wedge(l1_orders_2 X0))\wedge \\
& ((\neg v2_struct_0 X1)\wedge((v3_orders_2 X1)\wedge((v5_orders_2 X1)\wedge(l1_orders_2 \\
& X1))))))\Rightarrow((v1_orders_2 (k2_waybel27 X0 X1))\wedge(l1_orders_2 (k2_waybel27 \\
& X0 X1)))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_orders_2 X0)\Rightarrow(\forall X1.(l1_orders_2 X1)\Rightarrow((\\
& r5_waybel_1 X0 X1)\Leftrightarrow(\exists X2.((v1_funct_1 X2)\wedge((v1_funct_2 \\
& X2 (u1_struct_0 X0) (u1_struct_0 X1))\wedge(m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1))))))\wedge(v23_waybel_0 \\
& X2 X0 X1)))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow((v2_lattice3 X0)\Rightarrow(\neg v2_struct_0 X0)) \tag{5}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\ & X0) \wedge ((v1_lattice3 X0) \wedge ((v2_lattice3 X0) \wedge ((v3_lattice3 X0) \wedge \\ & (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((v3_orders_2 X1) \wedge ((v4_orders_2 \\ & X1) \wedge ((v5_orders_2 X1) \wedge ((v1_lattice3 X1) \wedge ((v2_lattice3 X1) \wedge \\ & ((v3_lattice3 X1) \wedge (l1_orders_2 X1)))))) \Rightarrow (\forall X2.((v3_orders_2 \\ & X2) \wedge ((v4_orders_2 X2) \wedge ((v5_orders_2 X2) \wedge ((v1_lattice3 X2) \wedge \\ & ((v2_lattice3 X2) \wedge ((v3_lattice3 X2) \wedge (l1_orders_2 X2)))))) \Rightarrow \\ & (\forall X3.((v3_orders_2 X3) \wedge ((v4_orders_2 X3) \wedge ((v5_orders_2 \\ & X3) \wedge ((v1_lattice3 X3) \wedge ((v2_lattice3 X3) \wedge ((v3_lattice3 X3) \wedge \\ & (l1_orders_2 X3)))))) \Rightarrow (((r5_waybel_1 X0 X1) \wedge (r5_waybel_1 X2 \\ & X3)) \Rightarrow (r5_waybel_1 (k2_waybel27 X1 X2) (k2_waybel27 X0 X3)))))) \end{aligned}$$