

t21_waybel17 (TMKspUCoLixbBReazuK- moY9SrWTS3mkjCtM)

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Let $v2_pre_topc : \iota \Rightarrow o$ 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 $v4_waybel11 : \iota \Rightarrow o$ be given. Let $l1_waybel_9 : \iota \Rightarrow o$ 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 $v5_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v7_waybel_0 : \iota \Rightarrow o$ be given. Let $l1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_waybel11 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_waybel_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v24_waybel_0 : \iota \Rightarrow o$ be given. Let $v22_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v25_waybel_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge ((v3_orders_2 \\
& X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 X0) \wedge ((v24_waybel_0 X0) \wedge \\
& ((v4_waybel11 X0) \wedge (l1_waybel_9 X0))))))) \Rightarrow (\forall X1. ((\neg v2_struct_0 \\
& X1) \wedge ((v2_pre_topc X1) \wedge ((v3_orders_2 X1) \wedge ((v4_orders_2 X1) \wedge \\
& ((v5_orders_2 X1) \wedge ((v24_waybel_0 X1) \wedge ((v4_waybel11 X1) \wedge (l1_waybel_9 \\
& X1))))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 \\
& X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow ((v22_waybel_0 X2 X0 X1) \Rightarrow \\
& (v5_pre_topc X2 X0 X1)))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v2_pre_topc\ X0)\wedge((v3_orders_2\ X0)\wedge((v4_orders_2\ X0)\wedge((v5_orders_2\ X0)\wedge((v1_lattice3\ X0)\wedge((v2_lattice3\ X0)\wedge \\
& ((v3_lattice3\ X0)\wedge((v4_waybel11\ X0)\wedge(l1_waybel_9\ X0))))))))\Rightarrow \\
& (\forall X1.((v2_pre_topc\ X1)\wedge((v3_orders_2\ X1)\wedge((v4_orders_2\ X1)\wedge((v5_orders_2\ X1)\wedge((v1_lattice3\ X1)\wedge((v2_lattice3\ X1)\wedge \\
& ((v3_lattice3\ X1)\wedge((v4_waybel11\ X1)\wedge(l1_waybel_9\ X1))))))))\Rightarrow \\
& (\forall X2.((v1_funct_1\ X2)\wedge((v1_funct_2\ X2\ (u1_struct_0\ X0) \\
& (u1_struct_0\ X1))\wedge((v5_pre_topc\ X2\ X0\ X1)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1 \\
& (k2_zfmisc_1\ (u1_struct_0\ X0)\ (u1_struct_0\ X1))))))\Rightarrow(\forall X3. \\
& ((\neg v2_struct_0\ X3)\wedge((v4_orders_2\ X3)\wedge((v7_waybel_0\ X3)\wedge(l1_waybel_0 \\
& X3\ X0))))\Rightarrow(r3_orders_2\ X1\ (k3_funct_2\ (u1_struct_0\ X0)\ (u1_struct_0 \\
& X1)\ X2\ (k1_waybel11\ X0\ X3))\ (k1_waybel11\ X1\ (k6_waybel_9\ X0\ X1\ X2 \\
& X3))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v3_orders_2\ X0)\wedge((v4_orders_2\ X0)\wedge((v5_orders_2\ X0)\wedge((v1_lattice3\ X0)\wedge((v2_lattice3\ X0)\wedge((v3_lattice3\ X0)\wedge \\
& (l1_orders_2\ X0))))))\Rightarrow(\forall X1.((v3_orders_2\ X1)\wedge((v4_orders_2\ X1)\wedge((v5_orders_2\ X1)\wedge((v1_lattice3\ X1)\wedge((v2_lattice3\ X1)\wedge \\
& ((v3_lattice3\ X1)\wedge(l1_orders_2\ X1))))))\Rightarrow(\forall X2.((v1_funct_1 \\
& X2)\wedge((v1_funct_2\ X2\ (u1_struct_0\ X0)\ (u1_struct_0\ X1))\wedge(m1_subset_1 \\
& X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ (u1_struct_0\ X1))))))\Rightarrow \\
& ((\forall X3.((\neg v2_struct_0\ X3)\wedge((v4_orders_2\ X3)\wedge((v7_waybel_0 \\
& X3)\wedge(l1_waybel_0\ X3\ X0))))\Rightarrow(r3_orders_2\ X1\ (k3_funct_2\ (u1_struct_0 \\
& X0)\ (u1_struct_0\ X1)\ X2\ (k1_waybel11\ X0\ X3))\ (k1_waybel11\ X1\ (k6_waybel_9 \\
& X0\ X1\ X2\ X3))))\Rightarrow(v22_waybel_0\ X2\ X0\ X1)))
\end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.(l1_waybel_9\ X0)\Rightarrow((l1_pre_topc\ X0)\wedge(l1_orders_2\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(l1_orders_2\ X0)\Rightarrow((v1_lattice3\ X0)\Rightarrow(\neg v2_struct_0\ X0)) \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1_orders_2\ X0)\Rightarrow(((\neg v2_struct_0\ X0)\wedge((v3_orders_2 \\
& X0)\wedge(v3_lattice3\ X0)))\Rightarrow((\neg v2_struct_0\ X0)\wedge((v3_orders_2\ X0)\wedge \\
& ((v24_waybel_0\ X0)\wedge(v25_waybel_0\ X0))))
\end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v2_pre_topc\ X0)\wedge((v3_orders_2\ X0)\wedge((v4_orders_2 \\ & X0)\wedge((v5_orders_2\ X0)\wedge((v1_lattice3\ X0)\wedge((v2_lattice3\ X0)\wedge \\ & ((v3_lattice3\ X0)\wedge((v4_waybel11\ X0)\wedge(l1_waybel_9\ X0))))))))\Rightarrow \\ & (\forall X1.((v2_pre_topc\ X1)\wedge((v3_orders_2\ X1)\wedge((v4_orders_2 \\ & X1)\wedge((v5_orders_2\ X1)\wedge((v1_lattice3\ X1)\wedge((v2_lattice3\ X1)\wedge \\ & ((v3_lattice3\ X1)\wedge((v4_waybel11\ X1)\wedge(l1_waybel_9\ X1))))))))\Rightarrow \\ & (\forall X2.((v1_funct_1\ X2)\wedge((v1_funct_2\ X2\ (u1_struct_0\ X0) \\ & (u1_struct_0\ X1))\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & (u1_struct_0\ X0)\ (u1_struct_0\ X1))))))\Rightarrow((v5_pre_topc\ X2\ X0\ X1)\Leftrightarrow \\ & (\forall X3.((\neg v2_struct_0\ X3)\wedge((v4_orders_2\ X3)\wedge((v7_waybel_0 \\ & X3)\wedge(l1_waybel_0\ X3\ X0))))\Rightarrow(r3_orders_2\ X1\ (k3_funct_2\ (u1_struct_0 \\ & X0)\ (u1_struct_0\ X1)\ X2\ (k1_waybel11\ X0\ X3))\ (k1_waybel11\ X1\ (k6_waybel_9 \\ & X0\ X1\ X2\ X3))))))\end{aligned}$$