

t12_waybel19

(TMcz9jvJMRwUcPoTipndB9orcd5B1sBgB22)

October 27, 2020

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 $v1_waybel19 : \iota \Rightarrow o$ 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 $v1_finset_1 : \iota \Rightarrow o$ be given. Let $r3_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v17_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v21_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((v3_orders_2 X0) \wedge ((v4_orders_2 X0) \wedge ((v5_orders_2 \\
 & \quad X0) \wedge ((v2_lattice3 X0) \wedge (l1_orders_2 X0)))) \Rightarrow (\forall X1. ((\neg \\
 & \quad v2_struct_0 X1) \wedge ((v3_orders_2 X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 \\
 & \quad X1) \wedge (l1_orders_2 X1)))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 \\
 & \quad X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
 & \quad (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))) \Rightarrow ((\forall X3. \\
 & \quad ((v1_finset_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
 & \quad X0)))) \Rightarrow (r3_waybel_0 X0 X1 X2 X3)) \wedge (\forall X3. ((\neg v1_xboole_0 \\
 & \quad X3) \wedge ((v2_waybel_0 X3 X0) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (u1_struct_0 \\
 & \quad X0)))) \Rightarrow (r3_waybel_0 X0 X1 X2 X3))) \Rightarrow (v17_waybel_0 X2 X0 X1)))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v2_pre_topc\ X0)\wedge((v3_orders_2\ X0)\wedge((v4_orders_2 \\
& X0)\wedge((v5_orders_2\ X0)\wedge((v1_lattice3\ X0)\wedge((v2_lattice3\ X0)\wedge \\
& ((v3_lattice3\ X0)\wedge((v1_waybel19\ X0)\wedge(l1_waybel_9\ X0))))))\Rightarrow \\
& (\forall X1.((v2_pre_topc\ X1)\wedge((v3_orders_2\ X1)\wedge((v4_orders_2 \\
& X1)\wedge((v5_orders_2\ X1)\wedge((v1_lattice3\ X1)\wedge((v2_lattice3\ X1)\wedge \\
& ((v3_lattice3\ X1)\wedge((v1_waybel19\ X1)\wedge(l1_waybel_9\ X1))))))\Rightarrow \\
& (\forall X2.((v1_funct_1\ X2)\wedge((v1_funct_2\ X2\ (u1_struct_0\ X0) \\
& (u1_struct_0\ X1))\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1 \\
& (u1_struct_0\ X0)\ (u1_struct_0\ X1))))))\Rightarrow((v5_pre_topc\ X2\ X0\ X1)\Rightarrow \\
& (v21_waybel_0\ X2\ X0\ X1)))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(l1_waybel_9\ X0)\Rightarrow((l1_pre_topc\ X0)\wedge(l1_orders_2\ X0)) \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0\ X0)\wedge(l1_orders_2\ X0))\Rightarrow(\forall X1. \\
& ((\neg v2_struct_0\ X1)\wedge(l1_orders_2\ X1))\Rightarrow(\forall X2.((v1_funct_1 \\
& X2)\wedge((v1_funct_2\ X2\ (u1_struct_0\ X0)\ (u1_struct_0\ X1))\wedge(m1_subset_1 \\
& X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ (u1_struct_0\ X1))))))\Rightarrow \\
& ((v21_waybel_0\ X2\ X0\ X1)\Leftrightarrow(\forall X3.(m1_subset_1\ X3\ (k1_zfmisc_1 \\
& (u1_struct_0\ X0)))\Rightarrow((v2_waybel_0\ X3\ X0)\Rightarrow((v1_xboole_0\ X3)\vee(\\
& r3_waybel_0\ X0\ X1\ X2\ X3))))))
\end{aligned} \tag{4}$$

Assume the following.

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

Theorem 1

$$\begin{aligned}
& \forall X0.((v2_pre_topc\ X0)\wedge((v3_orders_2\ X0)\wedge((v4_orders_2 \\
& X0)\wedge((v5_orders_2\ X0)\wedge((v1_lattice3\ X0)\wedge((v2_lattice3\ X0)\wedge \\
& ((v3_lattice3\ X0)\wedge((v1_waybel19\ X0)\wedge(l1_waybel_9\ X0))))))\Rightarrow \\
& (\forall X1.((v2_pre_topc\ X1)\wedge((v3_orders_2\ X1)\wedge((v4_orders_2 \\
& X1)\wedge((v5_orders_2\ X1)\wedge((v1_lattice3\ X1)\wedge((v2_lattice3\ X1)\wedge \\
& ((v3_lattice3\ X1)\wedge((v1_waybel19\ X1)\wedge(l1_waybel_9\ X1))))))\Rightarrow \\
& (\forall X2.((v1_funct_1\ X2)\wedge((v1_funct_2\ X2\ (u1_struct_0\ X0) \\
& (u1_struct_0\ X1))\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1 \\
& (u1_struct_0\ X0)\ (u1_struct_0\ X1))))))\Rightarrow(((v5_pre_topc\ X2\ X0\ X1)\wedge \\
& (\forall X3.((v1_finset_1\ X3)\wedge(m1_subset_1\ X3\ (k1_zfmisc_1\ (\\
& u1_struct_0\ X0))))\Rightarrow(r3_waybel_0\ X0\ X1\ X2\ X3)))\Rightarrow(v17_waybel_0 \\
& X2\ X0\ X1)))
\end{aligned}$$