

t22_waybel27
(TMdN4Th6fcMPhVThJoeuBYqjcntcyJKZ2jy)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_waybel27 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_yellow_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_orders_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v22_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Let $v4_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_yellow_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (l1_orders_2 X1) \Rightarrow (k1_funct_2 X0 (u1_struct_0 X1) = u1_struct_0 (k6_yellow_1 X0 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (k9_funct_2 X0 X1 = k1_funct_2 X0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \wedge \\ & ((\neg v2_struct_0 X1) \wedge (v3_orders_2 X1) \wedge (v5_orders_2 X1) \wedge (l1_orders_2 \\ & X1)))) \Rightarrow (\exists X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X1)))) \wedge ((v1_relat_1 X2) \wedge ((v4_relat_1 \\ & X2 (u1_struct_0 X0)) \wedge ((v5_relat_1 X2 (u1_struct_0 X1)) \wedge ((v1_funct_1 \\ & X2) \wedge ((\neg v1_xboole_0 X2) \wedge ((v1_partfun1 X2 (u1_struct_0 X0)) \wedge \\ & (v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge ((v5_orders_3 \\ & X2 X0 X1) \wedge (v22_waybel_0 X2 X0 X1)))))))))) \quad (3) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.(l1_orders_2 X1)\Rightarrow((v1_orders_2 (k6_yellow_1 X0 X1))\wedge(l1_orders_2 (k6_yellow_1 X0 X1))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_struct_0 X0)\wedge(l1_orders_2 X0))\wedge((\neg v2_struct_0 X1)\wedge((v3_orders_2 X1)\wedge((v5_orders_2 X1)\wedge(l1_orders_2 X1))))))\Rightarrow((v1_orders_2 (k2_waybel27 X0 X1))\wedge(l1_orders_2 (k2_waybel27 X0 X1))) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge(l1_orders_2 X0))\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v3_orders_2 X1)\wedge((v5_orders_2 X1)\wedge(l1_orders_2 X1)))))\Rightarrow(\forall X2.((v1_orders_2 X2)\wedge(l1_orders_2 X2))\Rightarrow((X2 = k2_waybel27 X0 X1)\Leftrightarrow(((v4_yellow_0 X2 (k6_yellow_1 (u1_struct_0 X0) X1))\wedge(m1_yellow_0 X2 (k6_yellow_1 (u1_struct_0 X0) X1)))\wedge(\forall X3.(X3 \in u1_struct_0 X2)\Leftrightarrow((v1_funct_1 X3)\wedge((v1_funct_2 X3 (u1_struct_0 X0) (u1_struct_0 X1))\wedge((v22_waybel_0 X3 X0 X1)\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))))))))))) \quad (6)$$

Assume the following.

$$\forall X0.(l1_orders_2 X0)\Rightarrow(\forall X1.(l1_orders_2 X1)\Rightarrow((m1_yellow_0 X1 X0)\Leftrightarrow((r1_tarski (u1_struct_0 X1) (u1_struct_0 X0))\wedge(r1_tarski (u1_orders_2 X1) (u1_orders_2 X0)))))) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(\forall X1.((v1_relat_1 X1)\wedge(v4_relat_1 X1 X0))\Rightarrow((v1_xboole_0 X1)\wedge((v1_relat_1 X1)\wedge(v4_relat_1 X1 X0)))) \quad (8)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0)\wedge(l1_orders_2 X0))\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge((v3_orders_2 X1)\wedge((v5_orders_2 X1)\wedge(l1_orders_2 X1)))))\Rightarrow(r1_tarski (u1_struct_0 (k2_waybel27 X0 X1)) (k9_funct_2 (u1_struct_0 X0) (u1_struct_0 X1)))$$