

t21_waybel11 (TMXLsmXVH- hzXbk57mKUFDVcnDJR2yqsDXBS)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_waybel_0 : \iota \Rightarrow o$ be given. Let $k3_waybel11 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_yellow_6 : \iota \Rightarrow \iota$ be given. Let $k5_classes1 : \iota \Rightarrow \iota$ be given. Let $k1_classes1 : \iota \Rightarrow \iota$ be given. Let $v6_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $l1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_yellow_6 : \iota \Rightarrow \iota$ be given. Let $r1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_waybel_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. r1_tarski X0 (k5_classes1 X0) \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in k1_classes1 X1) \wedge (r1_tarski X2 X0)) \Rightarrow (X2 \in k1_classes1 X1) \tag{2}$$

Assume the following.

$$\forall X0. X0 \in k1_classes1 X0 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v4_orders_2 X0) \wedge (l1_orders_2 X0))) \wedge ((\neg v1_xboole_0 X1) \wedge ((v1_funct_1 X2) \wedge \\ & ((v1_funct_2 X2 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 (u1_struct_0 X0)))))))) \Rightarrow ((\neg v2_struct_0 (k3_waybel11 X0 X1 X2)) \wedge ((v4_orders_2 (k3_waybel11 X0 X1 X2)) \wedge (v6_waybel_0 (k3_waybel11 X0 X1 X2) X0))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0. (l1_orders_2 X0) \Rightarrow (l1_struct_0 X0) \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(l1_orders_2 \\ & X0))\wedge((\neg v1_xboole_0 X1)\wedge((v1_funct_1 X2)\wedge((v1_funct_2 X2 X1 \\ & (u1_struct_0 X0))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X1 (u1_struct_0 X0))))))))\Rightarrow((\neg v2_struct_0 (k3_waybel11 X0 X1 \\ & X2))\wedge((v6_waybel_0 (k3_waybel11 X0 X1 X2) X0)\wedge(l1_waybel_0 (k3_waybel11 \\ & X0 X1 X2) X0))) \end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.k1_yellow_6 X0 = k1_classes1 (k5_classes1 X0) \tag{7}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge(l1_struct_0 X0))\Rightarrow(\forall X1. \\ & (X1 = k6_yellow_6 X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow(\exists X3.((\neg v2_struct_0 \\ & X3)\wedge((v4_orders_2 X3)\wedge((v6_waybel_0 X3 X0)\wedge((v7_waybel_0 X3)\wedge \\ & (l1_waybel_0 X3 X0))))))\wedge((X3 = X2)\wedge(u1_struct_0 X3 \in k1_yellow_6 \\ & (u1_struct_0 X0)))))) \end{aligned} \tag{8}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge(l1_orders_2 X0))\Rightarrow(\forall X1. \\ & (\neg v1_xboole_0 X1)\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 \\ & X2 X1 (u1_struct_0 X0))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X1 (u1_struct_0 X0))))))\Rightarrow(\forall X3.((\neg v2_struct_0 X3)\wedge((v6_waybel_0 \\ & X3 X0)\wedge(l1_waybel_0 X3 X0)))\Rightarrow((X3 = k3_waybel11 X0 X1 X2)\Leftrightarrow((u1_struct_0 \\ & X3 = X1)\wedge((r1_funct_2 (u1_struct_0 X3) (u1_struct_0 X0) X1 (u1_struct_0 \\ & X0) (u1_waybel_0 X0 X3) X2)\wedge(\forall X4.(m1_subset_1 X4 (u1_struct_0 \\ & X3))\Rightarrow(\forall X5.(m1_subset_1 X5 (u1_struct_0 X3))\Rightarrow((r1_orders_2 \\ & X3 X4 X5)\Leftrightarrow(r1_orders_2 X0 (k2_waybel_0 X0 X3 X4) (k2_waybel_0 X0 \\ & X3 X5)))))))))) \end{aligned} \tag{9}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0)\wedge((v4_orders_2 X0)\wedge(l1_orders_2 \\ & X0)))\Rightarrow(\forall X1.(\neg v1_xboole_0 X1)\Rightarrow(\forall X2.((v1_funct_1 \\ & X2)\wedge((v1_funct_2 X2 X1 (u1_struct_0 X0))\wedge(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X1 (u1_struct_0 X0))))))\Rightarrow(((r1_tarski X1 (u1_struct_0 \\ & X0))\wedge(v7_waybel_0 (k3_waybel11 X0 X1 X2)))\Rightarrow(k3_waybel11 X0 X1 \\ & X2 \in k6_yellow_6 X0)))) \end{aligned}$$