

t46_waybel_1

(TMYqmWe5HjFKDJauwE9X6XLhRKiqD4m5fGf)

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Let $v2_struct_0 : \iota \Rightarrow o$ 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 $l1_orders_2 : \iota \Rightarrow o$ 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 $v6_waybel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r3_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_yellow_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X3) \wedge \\ & ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))) \Rightarrow ((r1_tarski (k2_relset_1 X1 X3) X2) \Rightarrow (((X1 = k1_xboole_0) \wedge \\ & (X0 \neq k1_xboole_0)) \vee ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X2) \wedge (\\ & m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X2))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\
& X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((v1_funct_1 \\
& X1) \wedge ((v1_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 \\
& X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow \\
& ((v6_waybel_1 X1 X0) \Rightarrow ((k2_relset_1 (u1_struct_0 X0) (k2_partfun1 \\
& (u1_struct_0 X0) (u1_struct_0 X0) X1 (ReplSep (toset (\lambda X2 : \iota. \\
& m1_subset_1 X2 (u1_struct_0 X0))) (\lambda X2 : \iota.r3_orders_2 X0 \\
& X2 (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 X0) X1 X2)) (\lambda X2 : \\
& \iota.X2))) = k2_relset_1 (u1_struct_0 X0) X1) \wedge (k2_relset_1 (u1_struct_0 \\
& X0) (k2_partfun1 (u1_struct_0 X0) (u1_struct_0 X0) X1 (ReplSep \\
& (toset (\lambda X2 : \iota.m1_subset_1 X2 (u1_struct_0 X0))) (\lambda X2 : \\
& \iota.r3_orders_2 X0 (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 \\
& X0) X1 X2) X2) (\lambda X2 : \iota.X2))) = k2_relset_1 (u1_struct_0 X0 \\
& X1))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\
& X0) \wedge ((v5_orders_2 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow (\forall X1.((v1_funct_1 \\
& X1) \wedge ((v1_funct_2 X1 (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 \\
& X1 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \Rightarrow \\
& ((v6_waybel_1 X1 X0) \Rightarrow (k2_relset_1 (u1_struct_0 X0) X1 = k3_xboole_0 \\
& (ReplSep (toset (\lambda X2 : \iota.m1_subset_1 X2 (u1_struct_0 X0))) \\
& (\lambda X2 : \iota.r3_orders_2 X0 X2 (k3_funct_2 (u1_struct_0 X0) (u1_struct_0 \\
& X0) X1 X2)) (\lambda X2 : \iota.X2)) (ReplSep (toset (\lambda X2 : \iota.m1_subset_1 \\
& X2 (u1_struct_0 X0))) (\lambda X2 : \iota.r3_orders_2 X0 (k3_funct_2 \\
& (u1_struct_0 X0) (u1_struct_0 X0) X1 X2) X2) (\lambda X2 : \iota.X2))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X3) \wedge \\
& ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\
& X0 X1)))))) \Rightarrow ((r1_tarSKI X2 X0) \Rightarrow (((X1 = k1_xboole_0) \wedge (X0 \neq k1_xboole_0)) \vee \\
& ((v1_funct_1 (k2_partfun1 X0 X1 X3 X2)) \wedge ((v1_funct_2 (k2_partfun1 \\
& X0 X1 X3 X2) X2 X1) \wedge (m1_subset_1 (k2_partfun1 X0 X1 X3 X2) (k1_zfmisc_1 \\
& (k2_zfmisc_1 X2 X1))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \tag{6}$$

Assume the following.

$$\forall X0. \forall X1. r1_tarSKI (k3_xboole_0 X0 X1) X0 \tag{7}$$

Assume the following.

$$v1_xboole_0 \ k1_xboole_0 \tag{8}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((l1_orders_2 \ X0)\wedge(m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ & (u1_struct_0 \ X0))))\Rightarrow((v1_orders_2 \ (k5_yellow_0 \ X0 \ X1))\wedge((v4_yellow_0 \\ & (k5_yellow_0 \ X0 \ X1) \ X0)\wedge(m1_yellow_0 \ (k5_yellow_0 \ X0 \ X1) \ X0))) \end{aligned} \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski \ X0 \ X1)\Leftrightarrow(\forall X2.(X2 \in \ X0)\Rightarrow (X2 \in \ X1)) \tag{10}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 \ X0)\Rightarrow(\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ & (u1_struct_0 \ X0)))\Rightarrow(\forall X2.((v1_orders_2 \ X2)\wedge((v4_yellow_0 \\ & X2 \ X0)\wedge(m1_yellow_0 \ X2 \ X0)))\Rightarrow((X2 = k5_yellow_0 \ X0 \ X1)\Leftrightarrow(u1_struct_0 \\ & X2 = X1)))) \end{aligned} \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.k3_xboole_0 \ X0 \ X1 = k3_xboole_0 \ X1 \ X0 \tag{12}$$

Assume the following.

$$\forall X0.(v1_xboole_0 \ X0)\Rightarrow(\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0))\Rightarrow(v1_xboole_0 \ X1)) \tag{13}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 \ X0)\wedge((v3_orders_2 \ X0)\wedge((v4_orders_2 \\ & X0)\wedge((v5_orders_2 \ X0)\wedge(l1_orders_2 \ X0))))\Rightarrow(\forall X1.((v1_funct_1 \\ & X1)\wedge((v1_funct_2 \ X1 \ (u1_struct_0 \ X0) \ (u1_struct_0 \ X0))\wedge(m1_subset_1 \\ & X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (u1_struct_0 \ X0) \ (u1_struct_0 \ X0))))))\Rightarrow \\ & ((v6_waybel_1 \ X1 \ X0)\Rightarrow(\forall X2.((\neg v1_xboole_0 \ X2)\wedge(m1_subset_1 \\ & X2 \ (k1_zfmisc_1 \ (u1_struct_0 \ X0))))\Rightarrow((X2 = ReplSep \ (toset \ (\lambda X3 : \\ & \iota.m1_subset_1 \ X3 \ (u1_struct_0 \ X0))) \ (\lambda X3 : \iota.r3_orders_2 \\ & X0 \ (k3_funct_2 \ (u1_struct_0 \ X0) \ (u1_struct_0 \ X0) \ X1 \ X3) \ X3) \ (\lambda X3 : \\ & \iota.X3)\Rightarrow((v1_funct_1 \ (k2_partfun1 \ (u1_struct_0 \ X0) \ (u1_struct_0 \\ & X0) \ X1 \ X2))\wedge((v1_funct_2 \ (k2_partfun1 \ (u1_struct_0 \ X0) \ (u1_struct_0 \\ & X0) \ X1 \ X2) \ (u1_struct_0 \ (k5_yellow_0 \ X0 \ X2)) \ (u1_struct_0 \ (k5_yellow_0 \\ & X0 \ X2))))\wedge(m1_subset_1 \ (k2_partfun1 \ (u1_struct_0 \ X0) \ (u1_struct_0 \\ & X0) \ X1 \ X2) \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (u1_struct_0 \ (k5_yellow_0 \\ & X0 \ X2)) \ (u1_struct_0 \ (k5_yellow_0 \ X0 \ X2)))))))))) \end{aligned}$$