

t23_memstr_0
(TMFJZk5wX4GcNqvtCcz7Pf5rdb3YJi6uFi)

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Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_funct_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.((\\ v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow ((r1_xboole_0 (k9_xtuple_0 \\ X0) (k9_xtuple_0 X1)) \Rightarrow (r1_partfun1 X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (\neg X0 \in X1) \Rightarrow (r1_xboole_0 (k1_tarski X0) X1) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (k9_xtuple_0 (k2_funcop_1 X0 X1) = X0) \wedge (\\ r1_tarski (k10_xtuple_0 (k2_funcop_1 X0 X1)) (k1_tarski X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_setfam_1 X0) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge \\ ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge (l1_memstr_0 X1 X0)))) \Rightarrow \\ (\forall X2. ((v1_relat_1 X2) \wedge ((v4_relat_1 X2 (u1_struct_0 X1)) \wedge \\ ((v1_funct_1 X2) \wedge ((v5_funct_1 X2 (k2_memstr_0 X0 X1)) \wedge (v4_memstr_0 \\ X2 X0 X1)))))) \Rightarrow (\neg k4_struct_0 X1 \in k9_xtuple_0 X2))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(r1_xboole_0 X0 X1)\Rightarrow(r1_xboole_0 X1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((\neg v1_setfam_1 X0)\wedge(((\neg v2_struct_0 \\ X1)\wedge((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge(l1_memstr_0 X1 \\ X0))))\wedge(v7_ordinal1 X2)))\Rightarrow((v1_relat_1 (k7_memstr_0 X0 X1 X2))\wedge \\ ((v4_relat_1 (k7_memstr_0 X0 X1 X2) (u1_struct_0 X1))\wedge((v1_funct_1 \\ (k7_memstr_0 X0 X1 X2))\wedge(v5_funct_1 (k7_memstr_0 X0 X1 X2) (k2_memstr_0 \\ X0 X1)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarski X0) X1 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k2_funcop_1 X0 X1 = k2_zfmisc_1 X0 (k1_tarski X1) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_setfam_1 X0)\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge \\ ((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge(l1_memstr_0 X1 X0))))\Rightarrow \\ (\forall X2.(v7_ordinal1 X2)\Rightarrow(k7_memstr_0 X0 X1 X2 = k16_funcop_1 \\ (k4_struct_0 X1) X2))) \end{aligned} \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_setfam_1 X0)\Rightarrow(\forall X1.((\neg v2_struct_0 X1)\wedge \\ ((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge(l1_memstr_0 X1 X0))))\Rightarrow \\ (\forall X2.((v1_relat_1 X2)\wedge((v4_relat_1 X2 (u1_struct_0 X1))\wedge \\ ((v1_funct_1 X2)\wedge((v5_funct_1 X2 (k2_memstr_0 X0 X1))\wedge(v4_memstr_0 \\ X2 X0 X1))))))\Rightarrow(\forall X3.(v7_ordinal1 X3)\Rightarrow(r1_partfun1 X2 (k7_memstr_0 \\ X0 X1 X3)))) \end{aligned}$$