

t4_glib_005
(TMGRcA5dh97iQZF2VH3tse996SUKxe2dyz3)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_glib_000 : \iota \Rightarrow o$ be given. Let $v1_glib_003 : \iota \Rightarrow o$ be given. Let $v7_glib_003 : \iota \Rightarrow o$ be given. Let $k7_glib_000 : \iota \Rightarrow \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_glib_005 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_glib_005 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ 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 $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k7_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_glib_005 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_glib_005 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (k9_xtuple_0 (k2_funcop_1 X0 X1) = X0) \wedge (r1_tarski (k10_xtuple_0 (k2_funcop_1 X0 X1)) (k1_tarski X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k7_funcop_1 X0 X1 = k2_funcop_1 X0 X1 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k6_domain_1 X0 X1 = k1_tarski X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow(v4_relat_1 (k16_funcop_1 X1 X2) X0) \quad (6)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))\Rightarrow(\neg v1_xboole_0 (k6_glib_000 X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge((v1_glib_000 X0)\wedge((v1_glib_003 X0)\wedge(v7_glib_003 X0))))))\wedge(((v1_relat_1 X1)\wedge((v4_relat_1 X1 (k7_glib_000 X0))\wedge((v1_funct_1 X1)\wedge((v1_partfun1 X1 (k7_glib_000 X0))\wedge(v4_valued_0 X1))))))\wedge(m1_subset_1 X2 (k6_glib_000 X0))))\Rightarrow(m2_glib_005 (k5_glib_005 X0 X1 X2) X0 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.k16_funcop_1 X0 X1 = k7_funcop_1 (k1_tarski X0) X1 \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k2_funcop_1 X0 X1 = k2_zfmisc_1 X0 (k1_tarski X1) \quad (10)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge((v1_glib_000 X0)\wedge((v1_glib_003 X0)\wedge(v7_glib_003 X0))))))\Rightarrow(\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 (k7_glib_000 X0))\wedge((v1_funct_1 X1)\wedge((v1_partfun1 X1 (k7_glib_000 X0))\wedge(v4_valued_0 X1))))))\Rightarrow(\forall X2.(m1_subset_1 X2 (k6_glib_000 X0))\Rightarrow(\forall X3.(m2_glib_005 X3 X0 X1)\Rightarrow((X3 = k5_glib_005 X0 X1 X2)\Leftrightarrow((k4_glib_005 X0 X1 X3 k6_numbers = k16_funcop_1 X2 np_1)\wedge(\forall X4.(v7_ordinal1 X4)\Rightarrow(r2_relset_1 (k6_glib_000 X0) (k2_xboole_0 (k6_domain_1 k5_numbers np_1) (k7_glib_000 X0) (k4_glib_005 X0 X1 X3 (k1_nat_1 X4 np_1)) (k3_glib_005 X0 X1 (k4_glib_005 X0 X1 X3 X4)))))))))) \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 \ k5_numbers) \wedge ((v1_funct_1 \\ & \quad X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v1_glib_003 X0) \wedge \\ & \quad (v7_glib_003 X0))))))) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v4_relat_1 \\ & \quad X1 \ (k7_glib_000 X0)) \wedge ((v1_funct_1 X1) \wedge ((v1_partfun1 X1 \ (k7_glib_000 \\ & \quad X0)) \wedge (v4_valued_0 X1)))))) \Rightarrow (\forall X2.(m1_subset_1 X2 \ (k6_glib_000 \\ & \quad X0) \Rightarrow (k1_relset_1 \ (k6_glib_000 X0) \ (k4_glib_005 X0 X1 \ (k5_glib_005 \\ & \quad X0 X1 X2) \ k6_numbers) = k6_domain_1 \ (k6_glib_000 X0) X2))) \end{aligned}$$