

t42_glib_003
(TMSX81NPeYnt5V9fdcA453AbbMLZFnyQ99r)

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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 $v2_glib_003 : \iota \Rightarrow o$ be given. Let $v3_glib_003 : \iota \Rightarrow o$ be given. Let $k6_glib_003 : \iota \Rightarrow \iota$ be given. Let $k13_glib_003 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k13_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_7 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_6 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k4_glib_003 : \iota$ be given. Let $k3_glib_003 : \iota$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_glib_003 : \iota \Rightarrow \iota$ be given. Let $k16_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge (v1_finset_1 X0)))) \Rightarrow (\forall X1. \forall X2. (v7_ordinal1 \\ X2) \Rightarrow (\forall X3. (v7_ordinal1 X3) \Rightarrow ((X2 \neq X3) \Rightarrow (k1_funct_1 X0 X3 = \\ k1_funct_1 (k13_glib_000 X0 X2 X1) X3)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_7) \wedge (m2_subset_1 np_7 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_7 k5_numbers) \wedge (m1_subset_1 np_7 k1_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_6) \wedge (m2_subset_1 np_6 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_6 k5_numbers) \wedge (m1_subset_1 np_6 k1_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge \\ & ((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))\Rightarrow((\\ v1_relat_1 (k13_glib_000 X0 k4_glib_003 X1))\wedge((v4_relat_1 (k13_glib_000 \\ X0 k4_glib_003 X1) k5_numbers)\wedge((v1_funct_1 (k13_glib_000 X0 \\ k4_glib_003 X1))\wedge((v1_finset_1 (k13_glib_000 X0 k4_glib_003 \\ X1))\wedge(v1_glib_000 (k13_glib_000 X0 k4_glib_003 X1)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge \\ & ((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge((v1_glib_000 X0)\wedge(v2_glib_003 \\ X0))))))\Rightarrow((v1_relat_1 (k13_glib_000 X0 k4_glib_003 X1))\wedge((v4_relat_1 \\ (k13_glib_000 X0 k4_glib_003 X1) k5_numbers)\wedge((v1_funct_1 (k13_glib_000 \\ X0 k4_glib_003 X1))\wedge((v1_finset_1 (k13_glib_000 X0 k4_glib_003 \\ X1))\wedge(v2_glib_003 (k13_glib_000 X0 k4_glib_003 X1)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 \\ X0)\wedge((v1_finset_1 X0)\wedge((v1_glib_000 X0)\wedge(v2_glib_003 X0))))))\Rightarrow \\ & (k6_glib_003 X0 = k1_funct_1 X0 k3_glib_003) \end{aligned} \quad (7)$$

Assume the following.

$$k4_glib_003 = np_7 \quad (8)$$

Assume the following.

$$k3_glib_003 = np_6 \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 \\ X0)\wedge((v1_finset_1 X0)\wedge((v1_glib_000 X0)\wedge(v3_glib_003 X0))))))\Rightarrow \\ & (\forall X1.\forall X2.((X1 \in k6_glib_000 X0)\Rightarrow(k13_glib_003 X0 \\ X1 X2 = k13_glib_000 X0 k4_glib_003 (k1_funct_4 (k7_glib_003 X0) \\ (k16_funcop_1 X1 X2))))\wedge((\neg X1 \in k6_glib_000 X0)\Rightarrow(k13_glib_003 \\ X0 X1 X2 = X0))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 \\ X0)\wedge((v1_finset_1 X0)\wedge((v1_glib_000 X0)\wedge((v2_glib_003 X0)\wedge \\ (v3_glib_003 X0))))))\Rightarrow(\forall X1.\forall X2.k6_glib_003 X0 = \\ & k6_glib_003 (k13_glib_003 X0 X1 X2)) \end{aligned}$$