

t53_glib_000 (TMFuKgEVsTVjfYrhGfzWF- dRNFDjo7sVSNhX)

October 27, 2020

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 $m2_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_glib_000 : \iota \Rightarrow \iota$ be given. Let $k24_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k21_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_glib_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_glib_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. k4_xboole_0 X0 k1_xboole_0 = X0 \quad (2)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0))))) \Rightarrow (k7_glib_000 X0 = k21_glib_000 X0 (k6_glib_000 X0)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (4)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0))))) \Rightarrow (\neg v1_xboole_0 (k6_glib_000 X0)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))))\Rightarrow(\forall X3.(m2_glib_000 X3 X0 X1 X2)\Rightarrow(m1_glib_000 X3 X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.m1_subset_1 (k6_subset_1 X0 X1) (k1_zfmisc_1 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} &\forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))))\Rightarrow(\forall X1.\forall X2. \\ &\forall X3.(m1_glib_000 X3 X0)\Rightarrow((((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k6_glib_000 X0))))\wedge(r1_tarski X2 (k21_glib_000 X0 X1))))\Rightarrow((m2_glib_000 X3 X0 X1 X2)\Leftrightarrow((k24_glib_000 X0 X3 = X1)\wedge(k25_glib_000 X0 X3 = X2))))\wedge((\neg(\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k6_glib_000 X0))))\wedge(r1_tarski X2 (k21_glib_000 X0 X1))))\Rightarrow((m2_glib_000 X3 X0 X1 X2)\Leftrightarrow(r5_glib_000 X3 X0)))) \quad (8) \end{aligned}$$

Theorem 1

$$\begin{aligned} &\forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))))\Rightarrow(\forall X1.\forall X2. \\ &(m2_glib_000 X2 X0 (k6_glib_000 X0) (k6_subset_1 (k7_glib_000 X0) X1))\Rightarrow((k24_glib_000 X0 X2 = k6_glib_000 X0)\wedge(k25_glib_000 X0 X2 = k6_subset_1 (k7_glib_000 X0) X1))) \end{aligned}$$