

t168_glib_001

(TMK7EDamBeNRFpr3Kkx9eQhf2R982tHMZfM)

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 $m1_glib_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m3_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k24_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_glib_000 : \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k6_glib_000 X0) \Rightarrow ((k3_finseq_1 (k1_glib_001 X0 X1) = np_1) \wedge ((k1_funct_1 (k1_glib_001 X0 X1) np_1 = X1) \wedge ((k3_glib_001 X0 (k1_glib_001 X0 X1) = X1) \wedge ((k4_glib_001 X0 (k1_glib_001 X0 X1) = X1) \wedge (r1_glib_001 X0 X1 X1 (k1_glib_001 X0 X1))))))) \quad (3) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))))\Rightarrow((r2_relset_1 X0 X1 X2 X3)\Leftrightarrow(X2 = X3)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))))\wedge(m1_glib_000 X1 X0))\Rightarrow(k24_glib_000 X0 X1 = k6_glib_000 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow(k12_finseq_1 X0 X1 = k5_finseq_1 X1) \quad (6)$$

Assume the following.

$$\forall X0.(((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))))\Rightarrow(\forall X1.(m3_glib_001 X1 X0)\Rightarrow((v3_glib_001 X1 X0)\Leftrightarrow(\exists X2.(m1_subset_1 X2 (k6_glib_000 X0)\wedge(r2_relset_1 k5_numbers (k2_xboole_0 (k6_glib_000 X0) (k7_glib_000 X0)) X1 (k1_glib_001 X0 X2)))))) \quad (7)$$

Assume the following.

$$\forall X0.(((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))))\Rightarrow(\forall X1.(m3_glib_001 X1 X0)\Rightarrow(m2_finseq_1 X1 (k2_xboole_0 (k6_glib_000 X0) (k7_glib_000 X0)))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge((v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (9)$$

Assume the following.

$$\forall X0.(((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))))\Rightarrow(\forall X1.(m1_glib_000 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v1_funct_1 X1)\wedge((v1_finset_1 X1)\wedge(v1_glib_000 X1)))))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))))\wedge(m1_glib_000 X1 X0)\Rightarrow((\neg v1_xboole_0 (k24_glib_000 X0 X1))\wedge(m1_subset_1 (k24_glib_000 X0 X1) (k1_zfmisc_1 (k6_glib_000 X0)))) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ & ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \wedge (m1_subset_1 \\ & X1 (k6_glib_000 X0)) \Rightarrow (m3_glib_001 (k1_glib_001 X0 X1) X0) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ & X1 (k6_glib_000 X0)) \Rightarrow (k1_glib_001 X0 X1 = k12_finseq_1 (k6_glib_000 \\ & X0) X1)) \end{aligned} \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. (m1_glib_000 \\ & X1 X0) \Rightarrow (\forall X2. (m3_glib_001 X2 X0) \Rightarrow (((v3_glib_001 X2 X0) \wedge \\ & (k3_glib_001 X0 X2 \in k24_glib_000 X0 X1)) \Rightarrow (m3_glib_001 X2 X1)))) \end{aligned}$$