

t115_glib_001 (TMTxHi-
iXWTTTF6z3pDRNVqzKxQwMCc14xTjJ)

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 $m3_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_abian : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k16_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k13_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$k5_numbers = k4_ordinal1 \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 \\ X1 X0) \Rightarrow (\forall X2.(X2 \in k13_glib_001 X0 X1) \Leftrightarrow (\exists X3.((\neg v1_abian \\ X3) \wedge (m1_subset_1 X3 k5_numbers)) \wedge ((r1_xxreal_0 X3 (k3_finseq_1 \\ X1)) \wedge (k1_funct_1 X1 X3 = X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2.(((v1_relat_1 X0) \wedge ((v4_relat_1 \\ X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 \\ X0)))))) \wedge (m3_glib_001 X1 X0) \Rightarrow ((\neg v1_abian (k18_glib_001 X0 X1 \\ X2)) \wedge (m1_subset_1 (k18_glib_001 X0 X1 X2) k5_numbers)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2.(((v1_relat_1 X0) \wedge ((v4_relat_1 \\ X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 \\ X0)))))) \wedge (m3_glib_001 X1 X0) \Rightarrow ((\neg v1_abian (k16_glib_001 X0 X1 \\ X2)) \wedge (m1_subset_1 (k16_glib_001 X0 X1 X2) k5_numbers)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\
& X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 \\
& X1 X0) \Rightarrow (\forall X2.\forall X3.((\neg v1_abian X3) \wedge (m1_subset_1 X3 \\
& k5_numbers)) \Rightarrow (((X2 \in k13_glib_001 X0 X1) \Rightarrow ((X3 = k18_glib_001 X0 \\
& X1 X2) \Leftrightarrow ((r1_xxreal_0 X3 (k3_finseq_1 X1)) \wedge ((k1_funct_1 X1 X3 = \\
& X2) \wedge (\forall X4.((\neg v1_abian X4) \wedge (m1_subset_1 X4 k5_numbers)) \Rightarrow \\
& ((r1_xxreal_0 X4 (k3_finseq_1 X1)) \wedge (k1_funct_1 X1 X4 = X2)) \Rightarrow (\\
& r1_xxreal_0 X4 X3)))))) \wedge ((\neg X2 \in k13_glib_001 X0 X1) \Rightarrow ((X3 = k18_glib_001 \\
& X0 X1 X2) \Leftrightarrow (X3 = k3_finseq_1 X1))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\
& X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 \\
& X1 X0) \Rightarrow (\forall X2.\forall X3.((\neg v1_abian X3) \wedge (m1_subset_1 X3 \\
& k5_numbers)) \Rightarrow (((X2 \in k13_glib_001 X0 X1) \Rightarrow ((X3 = k16_glib_001 X0 \\
& X1 X2) \Leftrightarrow ((r1_xxreal_0 X3 (k3_finseq_1 X1)) \wedge ((k1_funct_1 X1 X3 = \\
& X2) \wedge (\forall X4.((v7_ordinal1 X4) \wedge (\neg v1_abian X4)) \Rightarrow ((r1_xxreal_0 \\
& X4 (k3_finseq_1 X1)) \wedge (k1_funct_1 X1 X4 = X2)) \Rightarrow (r1_xxreal_0 X3 X4)))))) \wedge \\
& ((\neg X2 \in k13_glib_001 X0 X1) \Rightarrow ((X3 = k16_glib_001 X0 X1 X2) \Leftrightarrow (X3 = k3_finseq_1 \\
& X1))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \tag{7}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\
& X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 \\
& X1 X0) \Rightarrow (\forall X2.((\neg v1_abian X2) \wedge (m1_subset_1 X2 k5_numbers)) \Rightarrow \\
& ((r1_xxreal_0 X2 (k3_finseq_1 X1)) \Rightarrow ((r1_xxreal_0 (k16_glib_001 \\
& X0 X1 (k1_funct_1 X1 X2)) X2) \wedge (r1_xxreal_0 X2 (k18_glib_001 X0 X1 \\
& (k1_funct_1 X1 X2))))))
\end{aligned}$$