

t82_glib_000 (TM-
FZN3f25yLjUJ3rGgyhFPyxMnH2oGgS7Vm)

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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $r1_tarSKI : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k36_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k37_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k38_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r4_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m1_glib_000 \\ & X1 X0) \Rightarrow (\forall X2.\forall X3.\forall X4.((r1_glib_000 X1 X2 X3 \\ & X4) \Rightarrow (r1_glib_000 X0 X2 X3 X4)) \wedge (((r2_glib_000 X1 X2 X3 X4) \Rightarrow (r2_glib_000 \\ & X0 X2 X3 X4)) \wedge (((r3_glib_000 X1 X2 X3 X4) \Rightarrow (r3_glib_000 X0 X2 X3 X4)) \wedge \\ & ((r4_glib_000 X1 X2 X3 X4) \Rightarrow (r4_glib_000 X0 X2 X3 X4)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.\forall X2. \\ & (m1_subset_1 X2 (k6_glib_000 X0)) \Rightarrow ((X1 \in k38_glib_000 X0 X2) \Leftrightarrow (\\ & \exists X3.r1_glib_000 X0 X2 X1 X3))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.\forall X2. \\ & (m1_subset_1 X2 (k6_glib_000 X0)) \Rightarrow ((X1 \in k37_glib_000 X0 X2) \Leftrightarrow (\\ & \exists X3.r2_glib_000 X0 X2 X1 X3))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.\forall X2. \\ & (m1_subset_1 X2 (k6_glib_000 X0)) \Rightarrow ((X1 \in k36_glib_000 X0 X2) \Leftrightarrow (\\ & \exists X3.r2_glib_000 X0 X1 X2 X3))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m1_glib_000 \\ X1 X0) \Rightarrow ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v1_funct_1 \\ X1) \wedge ((v1_finset_1 X1) \wedge (v1_glib_000 X1)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m1_glib_000 \\ X1 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (k6_glib_000 X0)) \Rightarrow (\forall X3. \\ (m1_subset_1 X3 (k6_glib_000 X1)) \Rightarrow ((X2 = X3) \Rightarrow ((r1_tarski (k36_glib_000 \\ X1 X3) (k36_glib_000 X0 X2)) \wedge ((r1_tarski (k37_glib_000 X1 X3) (\\ k37_glib_000 X0 X2)) \wedge (r1_tarski (k38_glib_000 X1 X3) (k38_glib_000 \\ X0 X2)))))))))) \end{aligned}$$