

t49_glib_002 (TMKLDUQyPExC- StNU5RyVQ1z3UjnQm9Z7vgx)

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 $r1_glib_002 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $m3_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_glib_002 : \iota \Rightarrow o$ be given. Let $v2_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 \\ X1 X0) \Rightarrow (\forall X2.\forall X3.(r1_glib_001 X0 X2 X3 X1) \Rightarrow ((m1_subset_1 \\ X2 (k6_glib_000 X0)) \wedge (m1_subset_1 X3 (k6_glib_000 X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\exists X1.m1_subset_1 X1 X0 \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(r1_glib_002 \\ X0 X1) \Leftrightarrow ((v3_glib_002 X0) \wedge (\forall X2.(m1_subset_1 X2 (k6_glib_000 \\ X0)) \Rightarrow (\exists X3.((v2_glib_001 X3 X0) \wedge (m3_glib_001 X3 X0)) \wedge (\\ r1_glib_001 X0 X1 X2 X3)))))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(r1_glib_002 \\ X0 X1) \Rightarrow (m1_subset_1 X1 (k6_glib_000 X0))) \end{aligned}$$