

t22_glib_002

(TMbCCFDd76pZ847S3742w5CU3sBH7Bnpxt)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $r5_glib_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_glib_002 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_glib_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.((v1_relat_1 \\ X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 \\ X1) \wedge (v1_glib_000 X1)))))) \Rightarrow ((r5_glib_000 X0 X1) \Leftrightarrow ((m1_glib_000 \\ X0 X1) \wedge (m1_glib_000 X1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m1_glib_000 \\ X1 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (k6_glib_000 X0)) \Rightarrow (\forall X3. \\ (m1_subset_1 X3 (k6_glib_000 X1)) \Rightarrow ((X2 = X3) \Rightarrow (r1_tarski (k2_glib_002 \\ X1 X3) (k2_glib_002 X0 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.((v1_relat_1 \\ X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 \\ X1) \wedge (v1_glib_000 X1)))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (k6_glib_000 \\ X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 (k6_glib_000 X1)) \Rightarrow (((r5_glib_000 \\ X0 X1) \wedge (X2 = X3)) \Rightarrow (k2_glib_002 X0 X2 = k2_glib_002 X1 X3)))))) \end{aligned}$$