

t90_glib_000
(TMTtVFKczac2mNyoWo3kRuq8f1Kv3wi4iHn)

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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 $v1_glib_000 : \iota \Rightarrow o$ be given. Let $r5_glib_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k14_glib_000 : \iota \Rightarrow \iota$ be given. Let $k16_glib_000 : \iota \Rightarrow \iota$ be given. Let $k18_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k20_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k21_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k23_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_glib_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k22_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k7_glib_000 : \iota \Rightarrow \iota$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_glib_000 : \iota \Rightarrow \iota$ be given. Let $k11_glib_000 : \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ 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.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m1_glib_000 \\ X1 X0) \Rightarrow (\forall X2.\forall X3.(r1_tarski (k22_glib_000 X1 X2 X3) \\ (k22_glib_000 X0 X2 X3)) \wedge (r1_tarski (k23_glib_000 X1 X2 X3) (k23_glib_000 \\ X0 X2 X3)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m1_glib_000 \\ X1 X0) \Rightarrow (\forall X2.(r1_tarski (k18_glib_000 X1 X2) (k18_glib_000 \\ X0 X2)) \wedge ((r1_tarski (k19_glib_000 X1 X2) (k19_glib_000 X0 X2)) \wedge \\ ((r1_tarski (k20_glib_000 X1 X2) (k20_glib_000 X0 X2)) \wedge (r1_tarski \\ (k21_glib_000 X1 X2) (k21_glib_000 X0 X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 (k1_zfmisc_1 X1))\Leftrightarrow(r1_tarski X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))\Rightarrow(k7_glib_000 X0 = k20_glib_000 X0 (k6_glib_000 X0)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))\wedge((v1_relat_1 X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v1_funct_1 X1)\wedge((v1_finset_1 X1)\wedge(v1_glib_000 X1))))))\Rightarrow((r5_glib_000 X0 X1)\Rightarrow(r5_glib_000 X1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))\Rightarrow(\forall X1.(m1_glib_000 X1 X0)\Rightarrow((v1_relat_1 X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v1_funct_1 X1)\wedge((v1_finset_1 X1)\wedge(v1_glib_000 X1)))))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))\Rightarrow(m1_subset_1 (k20_glib_000 X0 X1) (k1_zfmisc_1 (k7_glib_000 X0))) \quad (8)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))\Rightarrow(\forall X1.((v1_relat_1 X1)\wedge((v4_relat_1 X1 k5_numbers)\wedge((v1_funct_1 X1)\wedge((v1_finset_1 X1)\wedge(v1_glib_000 X1))))\Rightarrow((m1_glib_000 X1 X0)\Leftrightarrow((r1_tarski (k6_glib_000 X1) (k6_glib_000 X0))\wedge((r1_tarski (k7_glib_000 X1) (k7_glib_000 X0))\wedge(\forall X2.(X2 \in k7_glib_000 X1)\Rightarrow((k1_funct_1 (k10_glib_000 X1) X2 = k1_funct_1 (k10_glib_000 X0) X2)\wedge(k1_funct_1 (k11_glib_000 X1) X2 = k1_funct_1 (k11_glib_000 X0) X2))))))) \quad (9)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v4_relat_1 X0 k5_numbers)\wedge((v1_funct_1 X0)\wedge((v1_finset_1 X0)\wedge(v1_glib_000 X0))))\Rightarrow(k16_glib_000 X0 = k1_card_1 (k7_glib_000 X0)) \quad (10)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (k14_glib_000 X0 = k1_card_1 (k6_glib_000 X0)) \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 X1) \wedge (v1_glib_000 X1)))))) \Rightarrow (\forall X2. \forall X3. (r5_glib_000 X0 X1) \Rightarrow ((k14_glib_000 X0 = k14_glib_000 X1) \wedge ((k16_glib_000 X0 = k16_glib_000 X1) \wedge ((k18_glib_000 X0 X2 = k18_glib_000 X1 X2) \wedge ((k19_glib_000 X0 X2 = k19_glib_000 X1 X2) \wedge ((k20_glib_000 X0 X2 = k20_glib_000 X1 X2) \wedge ((k21_glib_000 X0 X2 = k21_glib_000 X1 X2) \wedge (k23_glib_000 X0 X2 X3 = k23_glib_000 X1 X2 X3)))))))))) \end{aligned}$$