

t30_glib_002

(TMHQYFj7wAXLFYe9w5QGxPN5F3tU9Cfsxht)

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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 $v4_glib_002 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_glib_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_glib_002 : \iota \Rightarrow o$ be given. Let $r7_glib_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k24_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25_glib_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_glib_000 : \iota \Rightarrow \iota$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. (m1_glib_000 \\ X1 X0) \Rightarrow (\forall X2. (m1_glib_000 X2 X0) \Rightarrow (\neg(r7_glib_000 X1 X2) \wedge \\ (\neg(r2_xboole_0 (k24_glib_000 X0 X1) (k24_glib_000 X0 X2)) \wedge (\neg r2_xboole_0 \\ (k25_glib_000 X0 X1) (k25_glib_000 X0 X2))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (m1_glib_000 X0 \\ X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski \\ X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \wedge (m1_glib_000 \\ X1 X0)) \Rightarrow (k25_glib_000 X0 X1 = k7_glib_000 X1) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ & ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \wedge (m1_glib_000 \\ & X1 X0)) \Rightarrow (k24_glib_000 X0 X1 = k6_glib_000 X1) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ & ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \wedge (m1_glib_000 \\ & X1 X0)) \Rightarrow (m1_subset_1 (k25_glib_000 X0 X1) (k1_zfmisc_1 (k7_glib_000 \\ & X0))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ & ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \wedge (m1_glib_000 \\ & X1 X0)) \Rightarrow ((\neg v1_xboole_0 (k24_glib_000 X0 X1)) \wedge (m1_subset_1 (k24_glib_000 \\ & X0 X1) (k1_zfmisc_1 (k6_glib_000 X0)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (r2_xboole_0 X0 X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (X0 \neq X1)) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. (m1_glib_000 \\ & X1 X0) \Rightarrow ((v4_glib_002 X1 X0) \Leftrightarrow ((v1_glib_002 X1) \wedge (\forall X2. ((\\ & v1_glib_002 X2) \wedge (m1_glib_000 X2 X0)) \Rightarrow (\neg r7_glib_000 X1 X2)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. (r2_xboole_0 X0 X1) \Rightarrow (\neg r2_xboole_0 X1 X0) \quad (10)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (((v4_glib_002 \\ & X0 X0) \wedge (m1_glib_000 X0 X0)) \Leftrightarrow (v1_glib_002 X0)) \end{aligned}$$