

t78\_glib\_000

(TMJEUL43xfMxFaK2adhCRYyuhcFjPbnvwJA)

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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  $m1\_glib\_000 : \iota \Rightarrow \iota \Rightarrow o$  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  $k26\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k27\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k28\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_glib\_000 : \iota \Rightarrow \iota$  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. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ & (m1\_subset\_1 X2 (k6\_glib\_000 X0)) \Rightarrow ((X1 \in k28\_glib\_000 X0 X2) \Leftrightarrow ( \\ & (X1 \in k7\_glib\_000 X0) \wedge ((k1\_funct\_1 (k10\_glib\_000 X0) X1 = X2) \vee ( \\ & \quad k1\_funct\_1 (k11\_glib\_000 X0) X1 = X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & \quad X1 (k6\_glib\_000 X0)) \Rightarrow (\forall X2.(X2 \in k27\_glib\_000 X0 X1) \Leftrightarrow ((X2 \in \\ & \quad k7\_glib\_000 X0) \wedge (k1\_funct\_1 (k10\_glib\_000 X0) X2 = X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & \quad X1 (k6\_glib\_000 X0)) \Rightarrow (\forall X2.(X2 \in k26\_glib\_000 X0 X1) \Leftrightarrow ((X2 \in \\ & \quad k7\_glib\_000 X0) \wedge (k1\_funct\_1 (k11\_glib\_000 X0) X2 = X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_glib\_000 \\ & \quad X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ((v4\_relat\_1 X1 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_glib\_000 X1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ X0\ X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow (X2 \in X1)) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1 \\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0))))\Rightarrow(\forall X1.((v1\_relat\_1 \\ X1)\wedge((v4\_relat\_1\ X1\ k5\_numbers)\wedge((v1\_funct\_1\ X1)\wedge((v1\_finset\_1 \\ X1)\wedge(v1\_glib\_000\ X1))))\Rightarrow((m1\_glib\_000\ X1\ X0)\Leftrightarrow((r1\_tarski\ ( \\ k6\_glib\_000\ X1)\ (k6\_glib\_000\ X0))\wedge(r1\_tarski\ (k7\_glib\_000\ X1) \\ (k7\_glib\_000\ X0))\wedge(\forall X2.(X2 \in k7\_glib\_000\ X1)\Rightarrow((k1\_funct\_1 \\ (k10\_glib\_000\ X1)\ X2 = k1\_funct\_1\ (k10\_glib\_000\ X0)\ X2)\wedge(k1\_funct\_1 \\ (k11\_glib\_000\ X1)\ X2 = k1\_funct\_1\ (k11\_glib\_000\ X0)\ X2)))))) \end{aligned} \quad (6)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1 \\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0))))\Rightarrow(\forall X1.(m1\_glib\_000 \\ X1\ X0)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k6\_glib\_000\ X0))\Rightarrow(\forall X3. \\ (m1\_subset\_1\ X3\ (k6\_glib\_000\ X1))\Rightarrow((X2 = X3)\Rightarrow((r1\_tarski\ (k26\_glib\_000 \\ X1\ X3)\ (k26\_glib\_000\ X0\ X2))\wedge((r1\_tarski\ (k27\_glib\_000\ X1\ X3)\ ( \\ k27\_glib\_000\ X0\ X2))\wedge(r1\_tarski\ (k28\_glib\_000\ X1\ X3)\ (k28\_glib\_000 \\ X0\ X2)))))) \end{aligned}$$