

t44\_glib\_000

(TMEim3635uatx1SxhnUCptZDgzeXfdf4iox)

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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  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  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  $k7\_glib\_000 : \iota \Rightarrow \iota$  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. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge \\ & ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \wedge (m1\_glib\_000 \\ & X1 X0)) \Rightarrow (k25\_glib\_000 X0 X1 = k7\_glib\_000 X1) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge \\ & ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \wedge (m1\_glib\_000 \\ & X1 X0)) \Rightarrow (k24\_glib\_000 X0 X1 = k6\_glib\_000 X1) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. (m1\_glib\_000 \\ & X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ((v4\_relat\_1 X1 k5\_numbers) \wedge ((v1\_funct\_1 \\ & X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_glib\_000 X1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow \\ & (X2 \in X1)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\
& X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.((v1\_relat\_1 \\
& X1) \wedge ((v4\_relat\_1 X1 k5\_numbers) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_finset\_1 \\
& X1) \wedge (v1\_glib\_000 X1)))))) \Rightarrow ((m1\_glib\_000 X1 X0) \Leftrightarrow ((r1\_tarski ( \\
& k6\_glib\_000 X1) (k6\_glib\_000 X0)) \wedge ((r1\_tarski (k7\_glib\_000 X1) \\
& (k7\_glib\_000 X0)) \wedge (\forall X2.(X2 \in k7\_glib\_000 X1) \Rightarrow ((k1\_funct\_1 \\
& (k10\_glib\_000 X1) X2 = k1\_funct\_1 (k10\_glib\_000 X0) X2) \wedge (k1\_funct\_1 \\
& (k11\_glib\_000 X1) X2 = k1\_funct\_1 (k11\_glib\_000 X0) X2))))))
\end{aligned} \tag{5}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\
& X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_glib\_000 \\
& X1 X0) \Rightarrow (\forall X2.(m1\_glib\_000 X2 X0) \Rightarrow (((r1\_tarski (k24\_glib\_000 \\
& X0 X1) (k24\_glib\_000 X0 X2)) \wedge (r1\_tarski (k25\_glib\_000 X0 X1) (k25\_glib\_000 \\
& X0 X2)))) \Rightarrow (m1\_glib\_000 X1 X2)))
\end{aligned}$$