

t37\_glib\_000

(TMKKyTiuTV5g2rrsVyveRKgYLY3JSNQDDv4)

October 27, 2020

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  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  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  $r3\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  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.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (m1\_subset\_1 (k22\_glib\_000 X0 X1 X2) (k1\_zfmisc\_1 (k7\_glib\_000 X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \forall X3. (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k7\_glib\_000 X0))) \Rightarrow ((X3 = k22\_glib\_000 X0 X1 X2) \Leftrightarrow (\forall X4. (X4 \in X3) \Leftrightarrow (r3\_glib\_000 X0 X1 X2 X4)))) \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\
& \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\
& \quad \forall X3. (r3\_glib\_000 X0 X1 X2 X3) \Leftrightarrow ((X3 \in k7\_glib\_000 X0) \wedge (( \\
& \quad k1\_funct\_1 (k10\_glib\_000 X0) X3 \in X1) \wedge (k1\_funct\_1 (k11\_glib\_000 \\
& \quad X0) X3 \in X2)) \vee ((k1\_funct\_1 (k10\_glib\_000 X0) X3 \in X2) \wedge (k1\_funct\_1 \\
& \quad (k11\_glib\_000 X0) X3 \in X1))))))
\end{aligned} \tag{5}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\
& \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\
& \quad \forall X3. \forall X4. ((r1\_tarski X1 X2) \wedge (r1\_tarski X3 X4)) \Rightarrow ( \\
& \quad r1\_tarski (k22\_glib\_000 X0 X1 X3) (k22\_glib\_000 X0 X2 X4))
\end{aligned}$$