

## t32\_glib\_000

(TMKZEF7ZEwa9aNqP2pf11JPpVwnP3niSrrm)

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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  $r1\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k21\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  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.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ & ((X1 \in k7\_glib\_000 X0) \wedge ((k1\_funct\_1 (k10\_glib\_000 X0) X1 \in X2) \wedge \\ & (k1\_funct\_1 (k11\_glib\_000 X0) X1 \in X2))) \Leftrightarrow (X1 \in k21\_glib\_000 X0 X2)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ & \forall X3. (r1\_glib\_000 X0 X1 X2 X3) \Leftrightarrow ((X3 \in k7\_glib\_000 X0) \wedge (( \\ & k1\_funct\_1 (k10\_glib\_000 X0) X3 = X1) \wedge (k1\_funct\_1 (k11\_glib\_000 \\ & X0) X3 = X2)) \vee ((k1\_funct\_1 (k10\_glib\_000 X0) X3 = X2) \wedge (k1\_funct\_1 \\ & \quad (k11\_glib\_000 X0) X3 = X1)))))) \end{aligned} \tag{2}$$

### Theorem 1

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ & \forall X3. \forall X4. ((X1 \in X2) \wedge ((X3 \in X2) \wedge (r1\_glib\_000 X0 X1 X3 \\ & \quad X4))) \Rightarrow (X4 \in k21\_glib\_000 X0 X2)) \end{aligned}$$