

t18\_glib\_000 (TM-  
cPQ4NhVAmVsZeZdRJc9KwGs3zE8qJEEpW)

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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  $v3\_glib\_000 : \iota \Rightarrow o$  be given. Let  $r1\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  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.

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow ((v3\_glib\_000 X0) \Leftrightarrow \\ (\forall X1. \neg (X1 \in k7\_glib\_000 X0) \wedge (k1\_funct\_1 (k10\_glib\_000 \\ X0) X1 = k1\_funct\_1 (k11\_glib\_000 X0) X1))) \end{aligned} \quad (1)$$

Assume the following.

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

**Theorem 1**

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow ((v3\_glib\_000 X0) \Leftrightarrow \\ (\forall X1. \forall X2. \neg r1\_glib\_000 X0 X1 X1 X2)) \end{aligned}$$