

## t15\_glib\_001

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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  $r1\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_glib\_001 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_glib\_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_glib\_001 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_glib\_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ & \quad \forall X3. (r1\_glib\_000 X0 X1 X3 X2) \Rightarrow ((k3\_glib\_001 X0 (k2\_glib\_001 \\ & \quad X0 X1 X3 X2) = X1) \wedge ((k4\_glib\_001 X0 (k2\_glib\_001 X0 X1 X3 X2) = X3) \wedge \\ & \quad (r1\_glib\_001 X0 X1 X3 (k2\_glib\_001 X0 X1 X3 X2)))))) \end{aligned} \tag{1}$$

### Theorem 1

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ & \quad \forall X3. (r1\_glib\_000 X0 X2 X3 X1) \Rightarrow ((k3\_glib\_001 X0 (k2\_glib\_001 \\ & \quad X0 X2 X3 X1) = X2) \wedge ((k4\_glib\_001 X0 (k2\_glib\_001 X0 X2 X3 X1) = X3) \wedge \\ & \quad (r1\_glib\_001 X0 X2 X3 (k2\_glib\_001 X0 X2 X3 X1)))))) \end{aligned}$$