

# t173\_glib\_001 (TMN- BCFS19F4TFthnWnQtVfcFARA8aYfDhBa)

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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  $r1\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_glib\_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k11\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_glib\_001 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_subset\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_glib\_000 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_glib\_000 \\ X1 X0) \Rightarrow (\forall X2.\forall X3.\forall X4.(r1\_glib\_000 X1 X2 X3 \\ X4) \Rightarrow (r1\_glib\_000 X0 X2 X3 X4))) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.\forall X2. \\ \forall X3.((r1\_glib\_000 X0 X1 X2 X3) \Rightarrow (k2\_glib\_001 X0 X1 X2 X3 = k11\_finseq\_1 \\ X1 X3 X2)) \wedge ((\neg r1\_glib\_000 X0 X1 X2 X3) \Rightarrow (k2\_glib\_001 X0 X1 X2 X3 = k1\_glib\_001 \\ X0 (k10\_subset\_1 (k6\_glib\_000 X0)))))) \end{aligned} \quad (3)$$

## Theorem 1

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_glib\_000 \\ X1 X0) \Rightarrow (\forall X2.\forall X3.\forall X4.(r1\_glib\_000 X1 X2 X3 \\ X4) \Rightarrow (k2\_glib\_001 X0 X2 X3 X4 = k2\_glib\_001 X1 X2 X3 X4))) \end{aligned}$$