

## l28\_glib\_002

(TMP4iUHg8qFth9jb5sMPeryLHpEw7KxWRXm)

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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  $v4\_glib\_002 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_glib\_000 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k24\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r5\_glib\_000 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $k1\_glib\_002 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X2))) \Rightarrow (m1\_subset\_1 X0 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0))))) \Rightarrow (\forall X1. ((v4\_glib\_002 X1 X0) \wedge (m1\_glib\_000 X1 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k6\_glib\_000 X0)) \Rightarrow ((X2 \in k24\_glib\_000 X0 X1) \Leftrightarrow (k24\_glib\_000 X0 X1 = k1\_glib\_002 X0 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0))))) \Rightarrow (\forall X1. ((v4\_glib\_002 X1 X0) \wedge (m1\_glib\_000 X1 X0)) \Rightarrow (\forall X2. ((v4\_glib\_002 X2 X0) \wedge (m1\_glib\_000 X2 X0)) \Rightarrow ((k24\_glib\_000 X0 X1 = k24\_glib\_000 X0 X2) \Leftrightarrow (r5\_glib\_000 X1 X2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0))))) \wedge (m1\_glib\_000 X1 X0)) \Rightarrow ((\neg v1\_xboole\_0 (k24\_glib\_000 X0 X1)) \wedge (m1\_subset\_1 (k24\_glib\_000 X0 X1) (k1\_zfmisc\_1 (k6\_glib\_000 X0)))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.((v4\_glib\_002 \\ X1 X0) \wedge (m1\_glib\_000 X1 X0)) \Rightarrow (\forall X2.((v4\_glib\_002 X2 X0) \wedge \\ (m1\_glib\_000 X2 X0)) \Rightarrow (\forall X3.((X3 \in k24\_glib\_000 X0 X1) \wedge (X3 \in \\ k24\_glib\_000 X0 X2)) \Rightarrow (r5\_glib\_000 X1 X2)))))) \end{aligned}$$