

t83\_glib\_000 (TM-  
SRMRg8VRiMPJPMhxBaSZ7hZu19CCcza8S)

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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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $v10\_glib\_000 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k26\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k27\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k28\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_glib\_000 \\ & X1 X0) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k6\_glib\_000 X0)) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (k6\_glib\_000 X1)) \Rightarrow ((X2 = X3) \Rightarrow ((r1\_tarski (k26\_glib\_000 \\ & X1 X3) (k26\_glib\_000 X0 X2)) \wedge ((r1\_tarski (k27\_glib\_000 X1 X3) ( \\ & k27\_glib\_000 X0 X2)) \wedge (r1\_tarski (k28\_glib\_000 X1 X3) (k28\_glib\_000 \\ & X0 X2)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(r1\_tarski X0 k1\_xboole\_0) \Rightarrow (X0 = k1\_xboole\_0) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_glib\_000 \\ & X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ((v4\_relat\_1 X1 k5\_numbers) \wedge ((v1\_funct\_1 \\ & X1) \wedge ((v1\_finset\_1 X1) \wedge (v1\_glib\_000 X1)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 (k6\_glib\_000 X0)) \Rightarrow ((v10\_glib\_000 X1 X0) \Leftrightarrow (k28\_glib\_000 X0 X1 = \\ & k1\_xboole\_0))) \end{aligned} \tag{4}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 \ k5\_numbers) \wedge ((v1\_funct\_1 \\ & X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_glib\_000 \\ & X1 X0) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k6\_glib\_000 X0)) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 (k6\_glib\_000 X1)) \Rightarrow (((X2 = X3) \wedge (v10\_glib\_000 X2 \\ & X0)) \Rightarrow (v10\_glib\_000 X3 X1)))))) \end{aligned}$$