

t61\_glib\_000  
(TMZoYikcGPHvssLg9QCwdbgEVjceZ19TrG3)

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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  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_glib\_000 : \iota \Rightarrow \iota$  be given. Let  $k28\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  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. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k20\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k21\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1\_xboole\_0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ & ((X1 \in k7\_glib\_000 X0) \wedge ((k1\_funct\_1 (k10\_glib\_000 X0) X1 \in X2) \vee \\ & (k1\_funct\_1 (k11\_glib\_000 X0) X1 \in X2))) \Leftrightarrow (X1 \in k20\_glib\_000 X0 X2)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow (k6\_domain\_1 X0 X1 = k1\_tarski X1) \quad (3)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (k7\_glib\_000 X0 = k21\_glib\_000 X0 (k6\_glib\_000 X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ & \quad X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ & ((X1 \in k7\_glib\_000 X0) \wedge ((k1\_funct\_1 (k10\_glib\_000 X0) X1 \in X2) \wedge \\ & (k1\_funct\_1 (k11\_glib\_000 X0) X1 \in X2))) \Leftrightarrow (X1 \in k21\_glib\_000 X0 X2)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 (k6\_glib\_000 X0)) \Rightarrow (k28\_glib\_000 X0 X1 = k20\_glib\_000 X0 (k6\_domain\_1 \\ (k6\_glib\_000 X0) X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k1\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (7)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 \\ X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_glib\_000 X0)))))) \Rightarrow (\forall X1. \forall X2. \\ (m1\_subset\_1 X2 (k6\_glib\_000 X0)) \Rightarrow ((X1 \in k28\_glib\_000 X0 X2) \Leftrightarrow ( \\ (X1 \in k7\_glib\_000 X0) \wedge ((k1\_funct\_1 (k10\_glib\_000 X0) X1 = X2) \vee ( \\ k1\_funct\_1 (k11\_glib\_000 X0) X1 = X2)))))) \end{aligned}$$