

l2\_glib\_004 (TMX-  
cQgYN5ApA5ryVXs9B9y9CGxsyG5komDR)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X0 \in k2\_xboole\_0 X2 (k1\_tarski X1)) \Leftrightarrow ((X0 \in X2) \vee (X0 = X1)) \quad (1)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1. \forall X2. k9\_xtuple\_0 (k1\_funct\_4 X0 (k16\_funcop\_1 X1 X2)) = k2\_xboole\_0 (k9\_xtuple\_0 X0) (k1\_tarski X1)) \quad (2)$$

**Theorem 1**

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1. \forall X2. \forall X3. (X3 \in k9\_xtuple\_0 (k1\_funct\_4 X0 (k16\_funcop\_1 X1 X2))) \Rightarrow ((X3 \in k9\_xtuple\_0 X0) \vee (X1 = X3)))$$