t49_glib_000 (TMV4GJY4dmGzB7NbwoLeBb4VHHywRhYEa6K)

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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 $m2\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_glib\_000 : \iota \Rightarrow \iota$ be given. Let $k21\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k24\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k25\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ 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 $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $r5\_glib\_000 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\neg(v1\_xboole\_0\ X0) \wedge ((X0 \neq X1) \wedge (v1\_xboole\_0\ X1)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(k4\_xboole\_0\ X0\ X1 = k1\_xboole\_0) \Leftrightarrow (r1\_tarski\ X0\ X1) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ X0\ X0 \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1\ X0\ X1 = k4\_xboole\_0\ X0\ X1 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\neg r2\_xboole\_0\ X0\ X0 \tag{5}$$

Assume the following.

$$v1\_xboole\_0\ k1\_xboole\_0 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\Rightarrow(\forall X3.(m2\_glib\_000\ X3\ X0\ X1\ X2)\Rightarrow(m1\_glib\_000\ X3\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.m1\_subset\_1\ (k6\_subset\_1\ X0\ X1)\ (k1\_zfmisc\_1\ X0) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(r2\_xboole\_0\ X0\ X1)\Leftrightarrow((r1\_tarski\ X0\ X1)\wedge(X0\neq X1)) \tag{9}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\Rightarrow(\forall X1.\forall X2.\forall X3.(m1\_glib\_000\ X3\ X0)\Rightarrow(((((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k6\_glib\_000\ X0))))\wedge(r1\_tarski\ X2\ (k21\_glib\_000\ X0\ X1)))\Rightarrow((m2\_glib\_000\ X3\ X0\ X1\ X2)\Leftrightarrow((k24\_glib\_000\ X0\ X3 = X1)\wedge(k25\_glib\_000\ X0\ X3 = X2))))\wedge((\neg((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k6\_glib\_000\ X0))))\wedge(r1\_tarski\ X2\ (k21\_glib\_000\ X0\ X1)))\Rightarrow((m2\_glib\_000\ X3\ X0\ X1\ X2)\Leftrightarrow(r5\_glib\_000\ X3\ X0))))) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(r2\_xboole\_0\ X0\ X1)\Rightarrow(\neg r2\_xboole\_0\ X1\ X0) \tag{11}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\Rightarrow(\forall X1.\forall X2.(m2\_glib\_000\ X2\ X0\ (k6\_subset\_1\ (k6\_glib\_000\ X0)\ X1)\ (k21\_glib\_000\ X0\ (k6\_subset\_1\ (k6\_glib\_000\ X0)\ X1)))\Rightarrow((r2\_xboole\_0\ X1\ (k6\_glib\_000\ X0))\Rightarrow((k24\_glib\_000\ X0\ X2 = k6\_subset\_1\ (k6\_glib\_000\ X0)\ X1)\wedge(k25\_glib\_000\ X0\ X2 = k21\_glib\_000\ X0\ (k6\_subset\_1\ (k6\_glib\_000\ X0)\ X1)))))$$