t71_glib_000 (TMLjZ6nhHbkmhkKjXCLbqeU1Hoe7Qa5aQAQ)

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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 $k38\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k37\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k36\_glib\_000 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \Rightarrow (\forall X1.\forall X2.\ (m1\_subset\_1\ X2\ (k6\_glib\_000\ X0)) \Rightarrow ((X1 \in k37\_glib\_000\ X0\ X2) \Leftrightarrow (\exists X3.r2\_glib\_000\ X0\ X2\ X1\ X3))) \tag{1}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \Rightarrow (\forall X1.\forall X2.\ (m1\_subset\_1\ X2\ (k6\_glib\_000\ X0)) \Rightarrow ((X1 \in k36\_glib\_000\ X0\ X2) \Leftrightarrow (\exists X3.r2\_glib\_000\ X0\ X1\ X2\ X3))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))) \Rightarrow (k4\_subset\_1\ X0\ X1\ X2 = k2\_xboole\_0\ X1\ X2) \tag{3}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v4\_relat\_1\ X0\ k5\_numbers) \wedge ((v1\_funct\_1\ X0) \wedge ((v1\_finset\_1\ X0) \wedge (v1\_glib\_000\ X0))))) \Rightarrow (\forall X1.\forall X2.\ \forall X3.(r1\_glib\_000\ X0\ X2\ X3\ X1) \Leftrightarrow ((r2\_glib\_000\ X0\ X2\ X3\ X1) \vee (r2\_glib\_000\ X0\ X3\ X2\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\wedge(m1\_subset\_1\ X1\ (k6\_glib\_000\ X0)))\Rightarrow(m1\_subset\_1\ (k37\_glib\_000\ X0\ X1)\ (k1\_zfmisc\_1\ (k6\_glib\_000\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\wedge(m1\_subset\_1\ X1\ (k6\_glib\_000\ X0)))\Rightarrow(m1\_subset\_1\ (k36\_glib\_000\ X0\ X1)\ (k1\_zfmisc\_1\ (k6\_glib\_000\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k6\_glib\_000\ X0))\Rightarrow(k38\_glib\_000\ X0\ X1 = k4\_subset\_1\ (k6\_glib\_000\ X0)\ (k36\_glib\_000\ X0\ X1)\ (k37\_glib\_000\ X0\ X1))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_xboole\_0\ X0\ X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow((X3 \in X0)\vee(X3 \in X1))) \tag{8}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v4\_relat\_1\ X0\ k5\_numbers)\wedge((v1\_funct\_1\ X0)\wedge((v1\_finset\_1\ X0)\wedge(v1\_glib\_000\ X0)))))\Rightarrow(\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k6\_glib\_000\ X0))\Rightarrow((X1 \in k38\_glib\_000\ X0\ X2)\Leftrightarrow(\exists X3.r1\_glib\_000\ X0\ X2\ X1\ X3)))$$