t72_valued_2 (TMFnzosVHiR4aZxx7qLYNhkNnuYwgAqadAJ)

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Let $v1\_valued\_2 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_valued\_0 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k68\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k35\_valued\_1 : \iota \Rightarrow \iota$ be given. Let $k5\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k62\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k24\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_valued\_0\ X0))) \Rightarrow (\forall X1.k1\_funct\_1\ (k35\_valued\_1\ X0)\ X1 = k5\_xcmplx\_0\ (k1\_funct\_1\ X0\ X1)) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k7\_xcmplx\_0\ np\_\_1\ X0 = k5\_xcmplx\_0\ X0) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_valued\_0\ X0))) \Rightarrow (v1\_xcmplx\_0\ (k1\_funct\_1\ X0\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_valued\_2\ X2) \wedge ((v1\_funct\_1\ X3) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2))))) \Rightarrow (v1\_valued\_0\ (k1\_funct\_1\ X3\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_valued\_2\ X2) \wedge ((v1\_funct\_1\ X3) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2))))) \Rightarrow ((v1\_relat\_1\ (k1\_funct\_1\ X3\ X1)) \wedge (v1\_funct\_1\ (k1\_funct\_1\ X3\ X1))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_valued\_2\ X0)\wedge(((v1\_relat\_1\ X1)\wedge((v5\_relat\_1\ X1\ X0)\wedge(v1\_funct\_1\ X1)))\wedge((v1\_relat\_1\ X2)\wedge((v1\_funct\_1\ X2)\wedge(v1\_valued\_0\ X2)))))\Rightarrow((v1\_relat\_1\ (k68\_valued\_2\ X0\ X1\ X2))\wedge(v1\_funct\_1\ (k68\_valued\_2\ X0\ X1\ X2))) \tag{6}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow((v1\_relat\_1\ (k35\_valued\_1\ X0))\wedge((v1\_funct\_1\ (k35\_valued\_1\ X0))\wedge(v1\_valued\_0\ (k35\_valued\_1\ X0)))) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_valued\_2\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v5\_relat\_1\ X1\ X0)\wedge(v1\_funct\_1\ X1)))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge((v1\_funct\_1\ X2)\wedge(v1\_valued\_0\ X2)))\Rightarrow(k68\_valued\_2\ X0\ X1\ X2 = k62\_valued\_2\ X0\ X1\ (k35\_valued\_1\ X2)))) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_valued\_2\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v5\_relat\_1\ X1\ X0)\wedge(v1\_funct\_1\ X1)))\Rightarrow(\forall X2.((v1\_relat\_1\ X2)\wedge((v1\_funct\_1\ X2)\wedge(v1\_valued\_0\ X2)))\Rightarrow(\forall X3.((v1\_relat\_1\ X3)\wedge(v1\_funct\_1\ X3))\Rightarrow((X3 = k62\_valued\_2\ X0\ X1\ X2)\Leftrightarrow((k9\_xtuple\_0\ X3 = k3\_xboole\_0\ (k9\_xtuple\_0\ X1)\ (k9\_xtuple\_0\ X2))\wedge(\forall X4.(X4 \in k9\_xtuple\_0\ X3)\Rightarrow(k1\_funct\_1\ X3\ X4 = k24\_valued\_1\ (k1\_funct\_1\ X1\ X4)\ (k1\_funct\_1\ X2\ X4)))))))) \tag{9}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow(k14\_valued\_2\ X0\ X1 = k24\_valued\_1\ X0\ (k7\_xcmplx\_0\ np\_\_1\ X1))) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow((v4\_relat\_1\ X2\ X0)\wedge(v5\_relat\_1\ X2\ X1)) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{12}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(v1\_valued\_2\ X2)\Rightarrow(\forall X3.((v1\_funct\_1\ X3)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2))))\Rightarrow(\forall X4.((v1\_relat\_1\ X4)\wedge((v1\_funct\_1\ X4)\wedge(v1\_valued\_0\ X4)))\Rightarrow((X1 \in k9\_xtuple\_0\ (k68\_valued\_2\ X2\ X3\ X4))\Rightarrow(k1\_funct\_1\ (k68\_valued\_2\ X2\ X3\ X4)\ X1 = k14\_valued\_2\ (k1\_funct\_1\ X3\ X1)\ (k1\_funct\_1\ X4\ X1))))))$$