t40_cfunct_1 (TMKjLZJKn6vfNQzs7yu4W2oNXyHpzHS4t5q)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ 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 $k2\_numbers : \iota$ be given. Let $r2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k25\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_cfunct\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_cfunct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_membered : \iota \Rightarrow o$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \Rightarrow (r2\_relset\_1\ X0\ k2\_numbers\ (k1\_cfunct\_1\ X0\ X1\ X2)\ (k19\_valued\_1\ X0\ k2\_numbers\ k2\_numbers\ X1\ (k2\_cfunct\_1\ X0\ X2)))))) \tag{1}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v1\_funct\_1\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ k2\_numbers) \Rightarrow (r2\_relset\_1\ X0\ k2\_numbers\ (k25\_valued\_1\ X0\ k2\_numbers\ (k19\_valued\_1\ X0\ k2\_numbers\ k2\_numbers\ X1\ X2)\ X3)\ (k19\_valued\_1\ X0\ k2\_numbers\ k2\_numbers\ (k25\_valued\_1\ X0\ k2\_numbers\ X1\ X3)\ X2)))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))) \Rightarrow ((r2\_relset\_1\ X0\ X1\ X2\ X3) \Leftrightarrow (X2 = X3)) \tag{3}$$

Assume the following.

$$v1\_membered\ k2\_numbers \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))))\Rightarrow((v1\_funct\_1\ (k2\_cfunct\_1\ X0\ X1))\wedge(m1\_subset\_1\ (k2\_cfunct\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_membered\ X1)\wedge(((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\wedge(v1\_xcmplx\_0\ X3)))\Rightarrow((v1\_funct\_1\ (k25\_valued\_1\ X0\ X1\ X2\ X3))\wedge(m1\_subset\_1\ (k25\_valued\_1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0)\wedge(((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\wedge((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))))\Rightarrow((v1\_funct\_1\ (k1\_cfunct\_1\ X0\ X1\ X2))\wedge(m1\_subset\_1\ (k1\_cfunct\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v1\_membered\ X1)\wedge((v1\_membered\ X2)\wedge(((v1\_funct\_1\ X3)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\wedge((v1\_funct\_1\ X4)\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X2)))))))\Rightarrow((v1\_funct\_1\ (k19\_valued\_1\ X0\ X1\ X2\ X3\ X4))\wedge(m1\_subset\_1\ (k19\_valued\_1\ X0\ X1\ X2\ X3\ X4)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers)))) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{9}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k2\_numbers))))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k2\_numbers)\Rightarrow(r2\_relset\_1\ X0\ k2\_numbers\ (k25\_valued\_1\ X0\ k2\_numbers\ (k1\_cfunct\_1\ X0\ X1\ X2)\ X3)\ (k1\_cfunct\_1\ X0\ (k25\_valued\_1\ X0\ k2\_numbers\ X1\ X3)\ X2)))))$$