

# t37\_funct\_8 (TMNgZKNY- HjDcy6grHyREsgF6hyigMazKQyd)

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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  $k1\_numbers : \iota$  be given. Let  $v6\_funct\_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_funct\_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k55\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k17\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Let  $k54\_valued\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v3\_valued\_0 : \iota \Rightarrow o$  be given. Let  $v5\_funct\_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_funct\_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_funct\_8 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_8 : \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k17\_complex1 (k4\_xcmplx\_0 X0) = k17\_complex1 X0) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_membered X1) \wedge ((v1\_funct\_1 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow (k55\_valued\_1 X0 X1 X2 = k54\_valued\_1 X2) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow (k1\_relset\_1 X0 X1 = k9\_xtuple\_0 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_valued\_0 X0))) \Rightarrow (v1\_xcmplx\_0 (k1\_funct\_1 X0 X1)) \quad (4)$$

Assume the following.

$$v3\_membered k1\_numbers \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_membered\ X1)\wedge((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))))\Rightarrow((v1\_funct\_1\ (k55\_valued\_1\ X0\ X1\ X2))\wedge(m1\_subset\_1\ (k55\_valued\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers)))) \quad (6)$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow((v1\_relat\_1\ (k54\_valued\_1\ X0))\wedge((v1\_funct\_1\ (k54\_valued\_1\ X0))\wedge(v3\_valued\_0\ (k54\_valued\_1\ X0)))) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_membered\ X0)\Rightarrow(\forall X1.(v1\_membered\ X1)\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\Rightarrow((v5\_funct\_8\ X2\ X0\ X1)\Leftrightarrow(\forall X3.(m1\_subset\_1\ X3\ k1\_numbers)\Rightarrow(((X3\in k1\_relset\_1\ X0\ X2)\wedge(k1\_real\_1\ X3\in k1\_relset\_1\ X0\ X2))\Rightarrow(k1\_funct\_1\ X2\ (k1\_real\_1\ X3) = k4\_xcmplx\_0\ (k1\_funct\_1\ X2\ X3)))))) \quad (8)$$

Assume the following.

$$\forall X0.(v1\_membered\ X0)\Rightarrow(\forall X1.(v1\_membered\ X1)\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\Rightarrow((v3\_funct\_8\ X2\ X0\ X1)\Leftrightarrow(\forall X3.(m1\_subset\_1\ X3\ k1\_numbers)\Rightarrow(((X3\in k1\_relset\_1\ X0\ X2)\wedge(k1\_real\_1\ X3\in k1\_relset\_1\ X0\ X2))\Rightarrow(k1\_funct\_1\ X2\ (k1\_real\_1\ X3) = k1\_funct\_1\ X2\ X3)))))) \quad (9)$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0)\Rightarrow((v2\_funct\_8\ X0)\Leftrightarrow(v1\_funct\_8\ (k9\_xtuple\_0\ X0))) \quad (10)$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v3\_valued\_0\ X1)))\Rightarrow((X1 = k54\_valued\_1\ X0)\Leftrightarrow((k9\_xtuple\_0\ X1 = k9\_xtuple\_0\ X0)\wedge(\forall X2.(X2\in k9\_xtuple\_0\ X1)\Rightarrow(k1\_funct\_1\ X1\ X2 = k17\_complex1\ (k1\_funct\_1\ X0\ X2)))))) \quad (11)$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(v1\_membered\ X0) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_membered\ X0)\wedge(v1\_membered\ X1))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(((v1\_funct\_1\ X2)\wedge(v6\_funct\_8\ X2\ X0\ X1))\Rightarrow((v1\_funct\_1\ X2)\wedge((v2\_funct\_8\ X2)\wedge(v5\_funct\_8\ X2\ X0\ X1)))))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow((v4\_relat\_1 X2 X0)\wedge(v5\_relat\_1 X2 X1)) \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1\_membered X0)\wedge(v1\_membered X1))\Rightarrow( \\ \forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow \\ (((v1\_funct\_1 X2)\wedge((v2\_funct\_8 X2)\wedge(v3\_funct\_8 X2 X0 X1)))\Rightarrow( \\ (v1\_funct\_1 X2)\wedge(v4\_funct\_8 X2 X0 X1))) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_relat\_1 X2) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(v1\_membered X1)\Rightarrow(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_valued\_0 X2)) \quad (17)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_funct\_1 X0)\wedge(m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ k1\_numbers k1\_numbers))))\Rightarrow((v6\_funct\_8 X0 k1\_numbers k1\_numbers)\Rightarrow \\ (v4\_funct\_8 (k55\_valued\_1 k1\_numbers k1\_numbers X0) k1\_numbers \\ k1\_numbers)) \end{aligned}$$