

t40\_funct\_8  
(TMQXQ1LY2vFDRo2kBi9G7ft1s63cQoiGeLJ)

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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  $v4\_funct\_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k41\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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  $k39\_valued\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_square\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  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  $v1\_membered : \iota \Rightarrow o$  be given. Let  $v3\_funct\_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  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.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_valued\_0 X0))) \Rightarrow \\ & ((k9\_xtuple\_0 (k39\_valued\_1 X0) = k9\_xtuple\_0 X0) \wedge (\forall X1. \\ & k1\_funct\_1 (k39\_valued\_1 X0) X1 = k3\_square\_1 (k1\_funct\_1 X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v3\_membered X1) \wedge ((v1\_funct\_1 \\ & X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow (k41\_valued\_1 \\ & X0 X1 X2 = k39\_valued\_1 X2) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v4\_relat\_1 X1 X0)) \Rightarrow ( \\ & k1\_relset\_1 X0 X1 = k9\_xtuple\_0 X1) \end{aligned} \quad (3)$$

Assume the following.

$$v3\_membered k1\_numbers \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v3\_membered X1) \wedge ((v1\_funct\_1 \\ & X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow ((v1\_funct\_1 \\ & (k41\_valued\_1 X0 X1 X2)) \wedge (m1\_subset\_1 (k41\_valued\_1 X0 X1 X2) ( \\ & k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k1\_numbers)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_valued\_0 X0)))\Rightarrow ((v1\_relat\_1 (k39\_valued\_1 X0))\wedge(v1\_funct\_1 (k39\_valued\_1 X0))) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_membered X0)\Rightarrow(\forall X1.(v1\_membered X1)\Rightarrow(\forall X2. \\ ((v1\_funct\_1 X2)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 \\ X1))))\Rightarrow((v3\_funct\_8 X2 X0 X1)\Leftrightarrow(\forall X3.(m1\_subset\_1 X3 k1\_numbers)\Rightarrow \\ (((X3 \in k1\_relset\_1 X0 X2)\wedge(k1\_real\_1 X3 \in k1\_relset\_1 X0 X2))\Rightarrow( \\ k1\_funct\_1 X2 (k1\_real\_1 X3) = k1\_funct\_1 X2 X3)))))) \quad (7) \end{aligned}$$

Assume the following.

$$\forall X0.(v1\_relat\_1 X0)\Rightarrow((v2\_funct\_8 X0)\Leftrightarrow(v1\_funct\_8 (k9\_xtuple\_0 X0))) \quad (8)$$

Assume the following.

$$\forall X0.(v3\_membered X0)\Rightarrow(v1\_membered X0) \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1\_membered X0)\wedge(v1\_membered X1))\Rightarrow( \\ \forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow \\ (((v1\_funct\_1 X2)\wedge(v4\_funct\_8 X2 X0 X1))\Rightarrow((v1\_funct\_1 X2)\wedge( \\ v2\_funct\_8 X2)\wedge(v3\_funct\_8 X2 X0 X1)))) \quad (10) \end{aligned}$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1\_membered X0)\wedge(v1\_membered X1))\Rightarrow( \\ \forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow \\ (((v1\_funct\_1 X2)\wedge((v2\_funct\_8 X2)\wedge(v3\_funct\_8 X2 X0 X1)))\Rightarrow( \\ (v1\_funct\_1 X2)\wedge(v4\_funct\_8 X2 X0 X1)))) \quad (12) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_relat\_1 X2) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(v1\_membered X1)\Rightarrow(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_valued\_0 X2)) \quad (14)$$

**Theorem 1**

$$\begin{aligned} \forall X0.((v1\_funct\_1 X0)\wedge(m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ k1\_numbers k1\_numbers))))\Rightarrow((v4\_funct\_8 X0 k1\_numbers k1\_numbers)\Rightarrow \\ (v4\_funct\_8 (k41\_valued\_1 k1\_numbers k1\_numbers X0) k1\_numbers \\ k1\_numbers)) \end{aligned}$$