

# t38\_funct\_8 (TMMNVtcsX- GrNG63MDuGambxdZrubm2kztqj)

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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  $k55\_valued.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v1\_valued.0 : \iota \Rightarrow o$  be given. Let  $v3\_valued.0 : \iota \Rightarrow o$  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  $k1\_funct.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_funct.8 : \iota \Rightarrow o$  be given. Let  $v1\_funct.8 : \iota \Rightarrow o$  be given. Let  $k17\_complex.1 : \iota \Rightarrow \iota$  be given. Let  $v5\_relat.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1\_membered X1) \wedge ((v1\_funct.1 X2) \wedge (m1\_subset.1 X2 (k1\_zfmisc.1 (k2\_zfmisc.1 X0 X1)))))) \Rightarrow (k55\_valued.1 X0 X1 X2 = k54\_valued.1 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat.1 X1) \wedge (v4\_relat.1 X1 X0)) \Rightarrow (k1\_relset.1 X0 X1 = k9\_xtuple.0 X1) \quad (2)$$

Assume the following.

$$v3\_membered k1\_numbers \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1\_membered X1) \wedge ((v1\_funct.1 X2) \wedge (m1\_subset.1 X2 (k1\_zfmisc.1 (k2\_zfmisc.1 X0 X1)))))) \Rightarrow ((v1\_funct.1 (k55\_valued.1 X0 X1 X2)) \wedge (m1\_subset.1 (k55\_valued.1 X0 X1 X2) (k1\_zfmisc.1 (k2\_zfmisc.1 X0 k1\_numbers)))) \quad (4)$$

Assume the following.

$$\forall X0. ((v1\_relat.1 X0) \wedge ((v1\_funct.1 X0) \wedge (v1\_valued.0 X0))) \Rightarrow ((v1\_relat.1 (k54\_valued.1 X0)) \wedge ((v1\_funct.1 (k54\_valued.1 X0)) \wedge (v3\_valued.0 (k54\_valued.1 X0)))) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_membered\ X0) \Rightarrow (\forall X1.(v1\_membered\ X1) \Rightarrow (\forall X2. \\ & ((v1\_funct\_1\ X2) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0 \\ & X1)))) \Rightarrow ((v3\_funct\_8\ X2\ X0\ X1) \Leftrightarrow (\forall X3.(m1\_subset\_1\ X3\ k1\_numbers) \Rightarrow \\ & (((X3 \in k1\_relset\_1\ X0\ X2) \wedge (k1\_real\_1\ X3 \in k1\_relset\_1\ X0\ X2)) \Rightarrow ( \\ & k1\_funct\_1\ X2\ (k1\_real\_1\ X3) = k1\_funct\_1\ X2\ X3)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0) \Rightarrow ((v2\_funct\_8\ X0) \Leftrightarrow (v1\_funct\_8\ (k9\_xtuple\_0\ X0))) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_valued\_0\ X0))) \Rightarrow \\ & (\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v3\_valued\_0 \\ & X1))) \Rightarrow ((X1 = k54\_valued\_1\ X0) \Leftrightarrow ((k9\_xtuple\_0\ X1 = k9\_xtuple\_0\ X0) \wedge \\ & (\forall X2.(X2 \in k9\_xtuple\_0\ X1) \Rightarrow (k1\_funct\_1\ X1\ X2 = k17\_complex1 \\ & (k1\_funct\_1\ X0\ X2)))))) \end{aligned} \quad (8)$$

Assume the following.

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

Assume the following.

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

Assume the following.

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

Assume the following.

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

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**

$$\forall X0.((v1\_funct\_1 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k1\_numbers k1\_numbers)))) \Rightarrow ((v4\_funct\_8 X0 k1\_numbers k1\_numbers) \Rightarrow (v4\_funct\_8 (k55\_valued\_1 k1\_numbers k1\_numbers X0) k1\_numbers k1\_numbers))$$