

## t22\_cfunct\_1

(TMVD3hAFhFETDrfRaNg5y5JDJk8cNekSMya)

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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  $k9\_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_valued\_0 : \iota \Rightarrow o$  be given. Let  $k24\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (\forall X2. \\ & ((v1\_relat\_1 X2) \wedge ((v1\_funct\_1 X2) \wedge (v1\_valued\_0 X2))) \Rightarrow (k24\_valued\_1 \\ & (k24\_valued\_1 X2 X0) X1 = k24\_valued\_1 X2 (k3\_xcmplx\_0 X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1 X2 \\ & (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \wedge (m1\_subset\_1 X3 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X0 X1)))) \Rightarrow ((r2\_relset\_1 X0 X1 X2 X3) \Leftrightarrow (X2 = X3)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k2\_numbers) \wedge (m1\_subset\_1 X1 k2\_numbers)) \Rightarrow (k9\_complex1 X0 X1 = k3\_xcmplx\_0 X0 X1) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1\_membered X1) \wedge \\ & (((v1\_funct\_1 X2) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 X1)))) \wedge (v1\_xcmplx\_0 X3))) \Rightarrow (k25\_valued\_1 X0 X1 X2 X3 = k24\_valued\_1 \\ & X2 X3) \end{aligned} \quad (4)$$

Assume the following.

$$v1\_membered k2\_numbers \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k2\_numbers)\wedge(m1\_subset\_1 X1 k2\_numbers))\Rightarrow(m1\_subset\_1 (k9\_complex1 X0 X1) k2\_numbers) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1\_membered X1)\wedge \\ & (((v1\_funct\_1 X2)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 X1))))\wedge(v1\_xcmplx\_0 X3)))\Rightarrow((v1\_funct\_1 (k25\_valued\_1 X0 X1 \\ & X2 X3))\wedge(m1\_subset\_1 (k25\_valued\_1 X0 X1 X2 X3) (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 k2\_numbers)))) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k2\_numbers)\wedge(m1\_subset\_1 X1 k2\_numbers))\Rightarrow(k9\_complex1 X0 X1 = k9\_complex1 X1 X0) \quad (8)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_relat\_1 X2) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(v1\_membered X1)\Rightarrow(\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_valued\_0 X2)) \quad (11)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0)\Rightarrow(\forall X1.((v1\_funct\_1 X1)\wedge( \\ & m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 k2\_numbers))))\Rightarrow( \\ & \forall X2.(m1\_subset\_1 X2 k2\_numbers)\Rightarrow(\forall X3.(m1\_subset\_1 \\ & X3 k2\_numbers)\Rightarrow(r2\_relset\_1 X0 k2\_numbers (k25\_valued\_1 X0 k2\_numbers \\ & X1 (k9\_complex1 X2 X3)) (k25\_valued\_1 X0 k2\_numbers (k25\_valued\_1 \\ & X0 k2\_numbers X1 X3) X2)))) \end{aligned}$$