

t26_cfunct_1

(TMJzKSwd4E9Vwmizy7iybpbqybNfZaqR11A)

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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 $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k25_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_complex1 : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $k24_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_xcmplx_0 np_1 X0 = X0) \quad (1)$$

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.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1_membered X1) \wedge \\ & (((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))) \wedge (v1_xcmplx_0 X3))) \Rightarrow (k25_valued_1 X0 X1 X2 X3 = k24_valued_1 \\ & X2 X3) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_valued_0 X0))) \Rightarrow (v1_xcmplx_0 (k1_funct_1 X0 X1)) \quad (5)$$

Assume the following.

$$v1_membered k2_numbers \quad (6)$$

Assume the following.

$$m1_subset_1 \ k6_complex1 \ k2_numbers \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 \ X0) \wedge ((v1_funct_1 \ X0) \wedge (v1_valued_0 \ X0))) \Rightarrow \\ (\forall X1.(v1_xcmplx_0 \ X1) \Rightarrow (\forall X2.((v1_relat_1 \ X2) \wedge (\\ v1_funct_1 \ X2)) \Rightarrow ((X2 = k24_valued_1 \ X0 \ X1) \Leftrightarrow ((k9_xtuple_0 \ X2 = k9_xtuple_0 \\ X0) \wedge (\forall X3.(X3 \in k9_xtuple_0 \ X2) \Rightarrow (k1_funct_1 \ X2 \ X3 = k3_xcmplx_0 \\ X1 \ (k1_funct_1 \ X0 \ X3))))))) \end{aligned} \quad (8)$$

Assume the following.

$$k6_complex1 = np_1 \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k2_numbers) \Rightarrow (v1_xcmplx_0 \ X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1_relat_1 \ X0) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)) \Rightarrow (v1_relat_1 \ X1)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(v1_membered \ X1) \Rightarrow (\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow (v1_valued_0 \ X2)) \quad (12)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 \ X0) \Rightarrow (\forall X1.((v1_funct_1 \ X1) \wedge (\\ m1_subset_1 \ X1 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ k2_numbers)))) \Rightarrow (\\ r2_relset_1 \ X0 \ k2_numbers \ (k25_valued_1 \ X0 \ k2_numbers \ X1 \ k6_complex1) \\ X1)) \end{aligned}$$