

t59_cfunct_1

(TMaxWyemk8vV5cgE5jn9Nkb2Y6ZfjHCEbTf)

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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 $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k25_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k24_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\
 & \quad m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 k2_numbers)))) \Rightarrow (\\
 & \quad \forall X2. (m1_subset_1 X2 k2_numbers) \Rightarrow ((k1_relset_1 X0 (k25_valued_1 \\
 & \quad X0 k2_numbers X1 X2) = k1_relset_1 X0 X1) \wedge (\forall X3. (m1_subset_1 \\
 & \quad X3 X0) \Rightarrow ((X3 \in k1_relset_1 X0 (k25_valued_1 X0 k2_numbers X1 X2)) \Rightarrow \\
 & \quad (k7_partfun1 k2_numbers (k25_valued_1 X0 k2_numbers X1 X2) X3 = \\
 & \quad k9_complex1 X2 (k7_partfun1 k2_numbers X1 X3))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_membered X1) \wedge \\
 & \quad (((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
 & \quad X0 X1)))) \wedge (v1_xcmplx_0 X3))) \Rightarrow (k25_valued_1 X0 X1 X2 X3 = k24_valued_1 \\
 & \quad X2 X3)
 \end{aligned} \tag{2}$$

Assume the following.

$$v1_membered k2_numbers \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v1_membered\ X1)\wedge \\ & (((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & X0\ X1))))\wedge(v1_xcmplx_0\ X3)))\Rightarrow((v1_funct_1\ (k25_valued_1\ X0\ X1 \\ & X2\ X3))\wedge(m1_subset_1\ (k25_valued_1\ X0\ X1\ X2\ X3)\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & X0\ k2_numbers)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_relat_1\ X1)\wedge(v4_relat_1\ X1\ X0))\Rightarrow(\\ & (v1_partfun1\ X1\ X0)\Leftrightarrow(k1_relset_1\ X0\ X1 = X0)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ X0\ X1)))\Rightarrow((v4_relat_1\ X2\ X0)\wedge(v5_relat_1\ X2\ X1)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ X0\ X1)))\Rightarrow(v1_relat_1\ X2) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow \\ & (v1_xcmplx_0\ X1)) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge(\\ & m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ k2_numbers))))\Rightarrow(\\ & \forall X2.(m1_subset_1\ X2\ k2_numbers)\Rightarrow((v1_partfun1\ X1\ X0)\Leftrightarrow \\ & (v1_partfun1\ (k25_valued_1\ X0\ k2_numbers\ X1\ X2)\ X0)))) \end{aligned}$$