

t34_vfunct_2 (TMStEdKpZWAGjD- kqVUqLNbg2gm1f9Q3LGN1)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_normsp_0 : \iota \Rightarrow o$ be given. Let $v4_normsp_0 : \iota \Rightarrow o$ be given. Let $v2_clvect_1 : \iota \Rightarrow o$ be given. Let $v3_clvect_1 : \iota \Rightarrow o$ be given. Let $v4_clvect_1 : \iota \Rightarrow o$ be given. Let $v5_clvect_1 : \iota \Rightarrow o$ be given. Let $v8_clvect_1 : \iota \Rightarrow o$ be given. Let $l2_clvect_1 : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_numbers : \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_vfunct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_clvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$v1_membered\ k2_numbers \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0\ X0)\wedge \\ & (((\neg v2_struct_0\ X1)\wedge((v13_algstr_0\ X1)\wedge((v2_rlvect_1\ X1)\wedge(\\ & (v3_rlvect_1\ X1)\wedge((v4_rlvect_1\ X1)\wedge((v3_normsp_0\ X1)\wedge((v4_normsp_0 \\ & X1)\wedge((v2_clvect_1\ X1)\wedge((v3_clvect_1\ X1)\wedge((v4_clvect_1\ X1)\wedge \\ & ((v5_clvect_1\ X1)\wedge(v8_clvect_1\ X1)\wedge(l2_clvect_1\ X1))))))))))\wedge \\ & (((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & X0\ (u1_struct_0\ X1)))))\wedge(v1_xcmplx_0\ X3)))\Rightarrow((v1_funct_1\ (k2_vfunct_2 \\ & X0\ X1\ X2\ X3))\wedge(m1_subset_1\ (k2_vfunct_2\ X0\ X1\ X2\ X3)\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ X0\ (u1_struct_0\ X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\
& ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 \\
& X1) \wedge ((v3_normsp_0 X1) \wedge ((v4_normsp_0 X1) \wedge ((v2_clvect_1 X1) \wedge \\
& ((v3_clvect_1 X1) \wedge ((v4_clvect_1 X1) \wedge ((v5_clvect_1 X1) \wedge ((v8_clvect_1 \\
& X1) \wedge (l2_clvect_1 X1)))))))))) \Rightarrow (\forall X2.((v1_funct_1 \\
& X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 (u1_struct_0 \\
& X1)))))) \Rightarrow (\forall X3.(v1_xcmplx_0 X3) \Rightarrow (\forall X4.((v1_funct_1 \\
& X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 (u1_struct_0 \\
& X1)))))) \Rightarrow ((X4 = k2_vfunct_2 X0 X1 X2 X3) \Leftrightarrow ((k1_relset_1 X0 X4 = k1_relset_1 \\
& X0 X2) \wedge (\forall X5.(m1_subset_1 X5 X0) \Rightarrow ((X5 \in k1_relset_1 X0 X4) \Rightarrow \\
& (k7_partfun1 (u1_struct_0 X1) X4 X5 = k1_clvect_1 X1 (k7_partfun1 \\
& (u1_struct_0 X1) X2 X5) X3)))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (v1_partfun1 X1 X0) \Leftrightarrow (k1_relset_1 X0 X1 = X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((v4_relat_1 X2 X0) \wedge (v5_relat_1 X2 X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \tag{6}$$

Assume the following.

$$\forall X0.(v1_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v1_xcmplx_0 X1)) \tag{7}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\
& ((v13_algstr_0 X1) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 \\
& X1) \wedge ((v3_normsp_0 X1) \wedge ((v4_normsp_0 X1) \wedge ((v2_clvect_1 X1) \wedge \\
& ((v3_clvect_1 X1) \wedge ((v4_clvect_1 X1) \wedge ((v5_clvect_1 X1) \wedge ((v8_clvect_1 \\
& X1) \wedge (l2_clvect_1 X1)))))))))) \Rightarrow (\forall X2.((v1_funct_1 \\
& X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 (u1_struct_0 \\
& X1)))))) \Rightarrow (\forall X3.(m1_subset_1 X3 k2_numbers) \Rightarrow ((v1_partfun1 \\
& X2 X0) \Leftrightarrow (v1_partfun1 (k2_vfunct_2 X0 X1 X2 X3) X0))))))
\end{aligned}$$