

t34_seq_2

(TMY7nwZ3LF5LcphVCkZJQGba7mwb9mfTKpr)

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Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_numbers : \iota$ 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 $v2_comseq_2 : \iota \Rightarrow o$ be given. Let $v2_relat_1 : \iota \Rightarrow o$ be given. Let $k3_comseq_2 : \iota \Rightarrow \iota$ be given. Let $k5_complex1 : \iota$ be given. Let $k2_seq_2 : \iota \Rightarrow \iota$ be given. Let $k55_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k51_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k17_complex1 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k13_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $k50_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (k13_complex1 \\ & (k17_complex1 X0) (k17_complex1 X1) = k17_complex1 (k13_complex1 \\ & X0 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k2_numbers) \wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow \\ & (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k2_numbers) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow \\ & (((v2_comseq_2 X0) \wedge ((v2_comseq_2 X1) \wedge (v2_relat_1 X1))) \Rightarrow ((k3_comseq_2 \\ & X1 = k5_complex1) \vee (k3_comseq_2 (k51_valued_1 k5_numbers k2_numbers \\ & k2_numbers X0 X1) = k13_complex1 (k3_comseq_2 X0) (k3_comseq_2 \\ & X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k2_numbers) \wedge \\
& (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow \\
& (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k2_numbers) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow \\
& (((v2_comseq_2 X0) \wedge ((v2_comseq_2 X1) \wedge (v2_relat_1 X1))) \Rightarrow ((k3_comseq_2 \\
& X1 = k5_complex1) \vee (v2_comseq_2 (k51_valued_1 k5_numbers k2_numbers \\
& k2_numbers X0 X1))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k2_numbers) \wedge \\
& (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow \\
& ((v2_comseq_2 X0) \Rightarrow (k2_seq_2 (k55_valued_1 k5_numbers k2_numbers \\
& X0) = k17_complex1 (k3_comseq_2 X0)))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. (((v1_membered \\
& X1) \wedge ((v1_membered X2) \wedge (((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X1)))) \wedge ((v1_funct_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X2)))))))))) \Rightarrow (k51_valued_1 X0 X1 X2 X3 X4 = k50_valued_1 \\
& X3 X4)
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k13_complex1 X0 X1 = k7_xcmplx_0 X0 X1) \tag{6}$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 X1)) \Rightarrow (k10_real_1 X0 X1 = k7_xcmplx_0 X0 X1) \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. (((\neg v1_xboole_0 \\
& X1) \wedge (v1_membered X1) \wedge (((\neg v1_xboole_0 X2) \wedge (v1_membered X2)) \wedge \\
& (((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X1)))))) \wedge ((v1_funct_1 X4) \wedge ((v1_funct_2 X4 X0 X2) \wedge \\
& (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X2)))))))))) \Rightarrow ((v1_funct_1 \\
& (k50_valued_1 X3 X4) \wedge (v1_partfun1 (k50_valued_1 X3 X4) X0))
\end{aligned} \tag{8}$$

Assume the following.

$$\neg v1_xboole_0 k2_numbers \tag{9}$$

Assume the following.

$$v1_membered k2_numbers \tag{10}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v1_membered \\ & X1)\wedge((v1_membered X2)\wedge(((v1_funct_1 X3)\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))))\wedge((v1_funct_1 X4)\wedge(m1_subset_1 X4 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X2))))))\Rightarrow((v1_funct_1 (k51_valued_1 X0 X1 X2 \\ & X3 X4)\wedge(m1_subset_1 (k51_valued_1 X0 X1 X2 X3 X4) (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 k2_numbers)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k2_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))\Rightarrow \\ & (m1_subset_1 (k3_comseq_2 X0) k2_numbers) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(m1_subset_1 (k17_complex1 X0) k1_numbers) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers)\Rightarrow(v1_xcmplx_0 X0) \quad (14)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xcmplx_0 X0) \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))\Rightarrow((v1_partfun1 X2 X0)\Rightarrow(v1_funct_2 X2 X0 X1)) \end{aligned} \quad (17)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k2_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))\Rightarrow \\ & (\forall X1.((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers k2_numbers)\wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))\Rightarrow \\ & (((v2_comseq_2 X0)\wedge((v2_comseq_2 X1)\wedge(v2_relat_1 X1)))\Rightarrow((k3_comseq_2 \\ & X1 = k5_complex1)\vee(k2_seq_2 (k55_valued_1 k5_numbers k2_numbers \\ & (k51_valued_1 k5_numbers k2_numbers k2_numbers X0 X1)) = k10_real_1 \\ & (k17_complex1 (k3_comseq_2 X0)) (k17_complex1 (k3_comseq_2 X1)))))) \end{aligned}$$