

t55_comseq_3

(TMMnx8JWahiP1jrs8ahW1yuK8PnRNanYHPw)

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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 $v1_comseq_3 : \iota \Rightarrow o$ be given. Let $k46_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_comseq_3 : \iota \Rightarrow \iota$ be given. Let $k11_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_comseq_3 : \iota \Rightarrow \iota$ be given. Let $v2_comseq_2 : \iota \Rightarrow o$ be given. Let $k3_comseq_2 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_membered : \iota \Rightarrow o$ be given. Let $k45_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_series_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k2_numbers) \wedge \\
 & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow \\
 & (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k2_numbers) \wedge \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow \\
 & (r2_funct_2 k5_numbers k2_numbers (k46_valued_1 k5_numbers k2_numbers \\
 & k2_numbers (k10_comseq_3 X0) (k10_comseq_3 X1)) (k10_comseq_3 \\
 & (k46_valued_1 k5_numbers k2_numbers k2_numbers X0 X1))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k2_numbers) \wedge \\
 & ((v2_comseq_2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
 & k5_numbers k2_numbers)))))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge \\
 & (v1_funct_2 X1 k5_numbers k2_numbers) \wedge ((v2_comseq_2 X1) \wedge (m1_subset_1 \\
 & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers)))))) \Rightarrow (k3_comseq_2 \\
 & (k46_valued_1 k5_numbers k2_numbers k2_numbers X0 X1) = k11_complex1 \\
 & (k3_comseq_2 X0) (k3_comseq_2 X1))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((v1_funct_1 X2)\wedge \\ & ((v1_funct_2 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))))\wedge((v1_funct_1 X3)\wedge((v1_funct_2 X3 X0 X1)\wedge(m1_subset_1 \\ & X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))))))\Rightarrow((r2_funct_2 X0 X1 X2 \\ & X3)\Leftrightarrow(X2 = X3)) \end{aligned} \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v1_membered \\ & X1)\wedge((v1_membered X2)\wedge(((v1_funct_1 X3)\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))))\wedge((v1_funct_1 X4)\wedge(m1_subset_1 X4 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X2))))))\Rightarrow(k46_valued_1 X0 X1 X2 X3 X4 = k45_valued_1 \\ & X3 X4) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k2_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))\Rightarrow \\ & (k10_comseq_3 X0 = k2_series_1 X0) \end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers \\ & k2_numbers)\wedge((v2_comseq_2 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers k2_numbers))))))\wedge((v1_funct_1 X1)\wedge \\ & ((v1_funct_2 X1 k5_numbers k2_numbers)\wedge((v2_comseq_2 X1)\wedge(m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))))\Rightarrow(\\ & (v1_funct_1 (k45_valued_1 X0 X1)\wedge((v1_funct_2 (k45_valued_1 \\ & X0 X1) k5_numbers k2_numbers)\wedge(v2_comseq_2 (k45_valued_1 X0 X1)))) \end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k2_numbers)\wedge \\ & ((v1_comseq_3 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k2_numbers))))\Rightarrow((v1_funct_1 (k2_series_1 X0))\wedge \\ & ((v1_funct_2 (k2_series_1 X0) k5_numbers k2_numbers)\wedge(v2_comseq_2 \\ & (k2_series_1 X0)))) \end{aligned} \tag{8}$$

Assume the following.

$$v1_membered k2_numbers \tag{9}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v1_membered \\ & X1)\wedge((v1_membered X2)\wedge(((v1_funct_1 X3)\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))))\wedge((v1_funct_1 X4)\wedge(m1_subset_1 X4 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X2))))))\Rightarrow((v1_funct_1 (k46_valued_1 X0 X1 X2 \\ & X3 X4)\wedge(m1_subset_1 (k46_valued_1 X0 X1 X2 X3 X4) (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 k2_numbers)))))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k2_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))\Rightarrow \\ & ((v1_funct_1 (k10_comseq_3 X0))\wedge((v1_funct_2 (k10_comseq_3 \\ & X0) k5_numbers k2_numbers)\wedge(m1_subset_1 (k10_comseq_3 X0) (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers k2_numbers)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k2_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))\Rightarrow \\ & ((v1_comseq_3 X0)\Leftrightarrow(v2_comseq_2 (k10_comseq_3 X0))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k2_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))\Rightarrow \\ & (k11_comseq_3 X0 = k3_comseq_2 (k10_comseq_3 X0)) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ & k2_numbers))\Rightarrow(((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers \\ & k2_numbers)\wedge(v1_comseq_3 X0))\Rightarrow((v1_funct_1 X0)\wedge((v1_funct_2 \\ & X0 k5_numbers k2_numbers)\wedge(v2_comseq_2 X0)))))) \end{aligned} \quad (14)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k2_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))\Rightarrow \\ & (\forall X1.((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers k2_numbers)\wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k2_numbers))))\Rightarrow \\ & (((v1_comseq_3 X0)\wedge(v1_comseq_3 X1))\Rightarrow((v1_comseq_3 (k46_valued_1 \\ & k5_numbers k2_numbers k2_numbers X0 X1))\wedge(k11_comseq_3 (k46_valued_1 \\ & k5_numbers k2_numbers k2_numbers X0 X1) = k11_complex1 (k11_comseq_3 \\ & X0) (k11_comseq_3 X1)))))) \end{aligned}$$