

t22_asympt_0 (TM-
RVSNNx9r4ErRTzFxEdYMWeMEcunvQnzhF)

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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 $k1_numbers : \iota$ be given. Let $v4_asympt_0 : \iota \Rightarrow o$ 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 $v2_comseq_2 : \iota \Rightarrow o$ be given. Let $k52_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_seq_2 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k7_asympt_0 : \iota \Rightarrow \iota$ be given. Let $v2_asympt_0 : \iota \Rightarrow o$ be given. Let $k6_asympt_0 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v5_asympt_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\
 & ((v2_asympt_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
 & k5_numbers k1_numbers)))))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge (\\
 & (v1_funct_2 X1 k5_numbers k1_numbers) \wedge ((v2_asympt_0 X1) \wedge (m1_subset_1 \\
 & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow (\forall X2. \\
 & ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 k5_numbers k1_numbers) \wedge ((v2_asympt_0 \\
 & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
 & (((X0 \in k7_asympt_0 X1) \wedge (X1 \in k7_asympt_0 X2)) \Rightarrow (X0 \in k7_asympt_0 \\
 & X2))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (\forall X2. (X2 \in X0) \Leftrightarrow (X2 \in X1)) \Rightarrow (X0 = X1) \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\
 & ((v2_asympt_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
 & k5_numbers k1_numbers)))))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge (\\
 & (v1_funct_2 X1 k5_numbers k1_numbers) \wedge ((v2_asympt_0 X1) \wedge (m1_subset_1 \\
 & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow ((\\
 & X0 \in k7_asympt_0 X1) \Leftrightarrow (X1 \in k6_asympt_0 X0))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers \\ & k1_numbers)\wedge((v2_asympt_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers k1_numbers))))))\Rightarrow((X0 \in k7_asympt_0 \\ & X1)\Rightarrow((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k1_numbers)\wedge \\ & ((v2_asympt_0 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k1_numbers))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k1_numbers)\wedge \\ & ((v4_asympt_0 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k1_numbers))))))\Rightarrow(\forall X1.((v1_funct_1 X1)\wedge \\ & (v1_funct_2 X1 k5_numbers k1_numbers)\wedge((v4_asympt_0 X1)\wedge(m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers))))))\Rightarrow((\\ & v2_comseq_2 (k52_valued_1 k5_numbers k1_numbers k1_numbers X0 \\ & X1))\Rightarrow((r1_xreal_0 (k2_seq_2 (k52_valued_1 k5_numbers k1_numbers \\ & k1_numbers X0 X1)) k6_numbers)\vee(k6_asympt_0 X0 = k6_asympt_0 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k1_numbers)\wedge \\ & ((v2_asympt_0 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k1_numbers))))))\Rightarrow(X0 \in k6_asympt_0 X0) \end{aligned} \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k1_numbers)\wedge \\ & ((v4_asympt_0 X0)\wedge(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k1_numbers))))))\Rightarrow(\forall X1.((v1_funct_1 X1)\wedge \\ & (v1_funct_2 X1 k5_numbers k1_numbers)\wedge((v4_asympt_0 X1)\wedge(m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers))))))\Rightarrow((\\ & v2_comseq_2 (k52_valued_1 k5_numbers k1_numbers k1_numbers X0 \\ & X1))\Rightarrow((r1_xreal_0 (k2_seq_2 (k52_valued_1 k5_numbers k1_numbers \\ & k1_numbers X0 X1)) k6_numbers)\vee(X0 \in k6_asympt_0 X1)))) \end{aligned} \quad (9)$$

Assume the following.

$$k1_xboole_0 = the (\lambda X0 : \iota.v1_xboole_0 X0) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ & k1_numbers))) \Rightarrow (((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers \\ & k1_numbers) \wedge (v4_asympt_0 X0))) \Rightarrow ((v1_funct_1 X0) \wedge ((v1_funct_2 \\ & X0 k5_numbers k1_numbers) \wedge ((v2_asympt_0 X0) \wedge (v5_asympt_0 X0)))))) \end{aligned} \quad (11)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\ & ((v4_asympt_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k1_numbers)))))) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge (\\ & (v1_funct_2 X1 k5_numbers k1_numbers) \wedge ((v4_asympt_0 X1) \wedge (m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow ((\\ & v2_comseq_2 (k52_valued_1 k5_numbers k1_numbers k1_numbers X0 \\ & X1)) \Rightarrow ((r1_xxreal_0 (k2_seq_2 (k52_valued_1 k5_numbers k1_numbers \\ & k1_numbers X0 X1)) k6_numbers) \vee (k7_asympt_0 X0 = k7_asympt_0 X1)))) \end{aligned}$$