

t68_asympt_1

(TMQZ5S1BVKNcgMPQSweJTo5LV7eZ7R9yddt)

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Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k4_power : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k3_asympt_1 : \iota \Rightarrow \iota$ be given. Let $k2_seq_2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v2_xxreal_0 X0) \wedge (m1_subset_1 X0 k1_numbers)) \Rightarrow (\\
& \quad \forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge \\
& \quad (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
& \quad ((\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow ((\neg r1_xxreal_0 \\
& X2 k6_numbers) \Rightarrow (k1_seq_1 X1 X2 = k6_power np_2 (k4_power X2 X0)))) \Rightarrow \\
& \quad ((v2_comseq_2 (k52_valued_1 k5_numbers k1_numbers k1_numbers \\
& X1 (k3_asympt_1 X0))) \wedge (k2_seq_2 (k52_valued_1 k5_numbers k1_numbers \\
& k1_numbers X1 (k3_asympt_1 X0)) = k6_numbers)))
\end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((v2_xxreal_0 X0) \wedge (m1_subset_1 X0 k1_numbers)) \Rightarrow (\\
& \quad \forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge \\
& \quad (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
& \quad (((k1_seq_1 X1 k6_numbers = k6_numbers) \wedge (\forall X2.(m2_subset_1 \\
& X2 k1_numbers k5_numbers) \Rightarrow ((\neg r1_xxreal_0 X2 k6_numbers) \Rightarrow (k1_seq_1 \\
& X1 X2 = k6_power np_2 (k4_power X2 X0)))))) \Rightarrow ((v2_comseq_2 (k52_valued_1 \\
& k5_numbers k1_numbers k1_numbers X1 (k3_asympt_1 X0))) \wedge (k2_seq_2 \\
& (k52_valued_1 k5_numbers k1_numbers k1_numbers X1 (k3_asympt_1 \\
& X0)) = k6_numbers)))
\end{aligned}$$