

t6_asympt_1
(TMSi6x3MJf7NCY7FbNVNW4aKHWYo8SCL6hS)

October 27, 2020

Let $k3_asympt_1 : \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k7_asympt_0 : \iota \Rightarrow \iota$ be given. Let $k2_asympt_1 : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_asympt_0 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v2_asympt_0 : \iota \Rightarrow o$ 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 $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_asympt_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v5_asympt_0 : \iota \Rightarrow o$ be given. Assume the following.

$$(r1_tarski (k6_asympt_0 k2_asympt_1) (k6_asympt_0 (k3_asympt_1 (k10_real_1 np_1 np_2)))) \wedge (k6_asympt_0 k2_asympt_1 \neq k6_asympt_0 \quad (1) \\ (k3_asympt_1 (k10_real_1 np_1 np_2)))$$

Assume the following.

$$\forall X0. ((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\ ((v2_asympt_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ k5_numbers k1_numbers)))))) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ (v1_funct_2 X1 k5_numbers k1_numbers) \wedge ((v2_asympt_0 X1) \wedge (m1_subset_1 \\ X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow ((\\ (r1_tarski (k6_asympt_0 X0) (k6_asympt_0 X1)) \Rightarrow ((k6_asympt_0 \\ X0 = k6_asympt_0 X1) \vee ((X0 \in k6_asympt_0 X1) \wedge (\neg X0 \in k7_asympt_0 X1)))) \wedge \\ ((X0 \in k6_asympt_0 X1) \Rightarrow ((X0 \in k7_asympt_0 X1) \vee ((r1_tarski (k6_asympt_0 \\ X0) (k6_asympt_0 X1)) \wedge (k6_asympt_0 X0 \neq k6_asympt_0 X1)))))) \quad (2)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow ((v1_funct_1 (k3_asympt_1 \\ & X0)) \wedge ((v1_funct_2 (k3_asympt_1 X0) k5_numbers k1_numbers) \wedge (\\ & v4_asympt_0 (k3_asympt_1 X0)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 k2_asympt_1) \wedge ((v1_funct_2 k2_asympt_1 k5_numbers \\ & k1_numbers) \wedge (v4_asympt_0 k2_asympt_1)) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow ((v1_funct_1 (k3_asympt_1 \\ & X0)) \wedge ((v1_funct_2 (k3_asympt_1 X0) k5_numbers k1_numbers) \wedge (\\ & m1_subset_1 (k3_asympt_1 X0) (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ & k1_numbers)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 k2_asympt_1) \wedge ((v1_funct_2 k2_asympt_1 k5_numbers \\ & k1_numbers) \wedge (m1_subset_1 k2_asympt_1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k1_numbers)))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 X0 k1_numbers) \wedge (v1_xreal_0 \\ & X1)) \Rightarrow (m1_subset_1 (k10_real_1 X0 X1) k1_numbers) \end{aligned} \quad (10)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} (k3_asympt_1 (k10_real_1 np_1 np_2) \in k7_asympt_0 k2_asympt_1) \wedge \\ (\neg k2_asympt_1 \in k7_asympt_0 (k3_asympt_1 (k10_real_1 np_1 np_2))) \end{aligned}$$