

t93_asympt_1 (TMXRfaan- DrUrgX4AEuD7zUoWHsYZXR5DMtH)

October 27, 2020

Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k9_newton : \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_asympt_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k3_newton : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\neg r1_xreal_0 (k3_newton X0) k6_numbers) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k9_newton X0 = k3_newton X0) \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (6)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (m2_subset_1 (k9_newton X0) k1_numbers \\ k5_numbers) \quad (7)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_subset_1\ X0\ k1_numbers\ k5_numbers) \Rightarrow (\forall X1. \\ (m2_subset_1\ X1\ k1_numbers\ k5_numbers) \Rightarrow (((X0 \neq k6_numbers) \Rightarrow (\\ (X1 = k7_asympt_1\ X0) \Leftrightarrow (\exists X2.(m2_subset_1\ X2\ k1_numbers\ k5_numbers) \wedge \\ ((r1_xxreal_0\ (k9_newton\ X2)\ X0) \wedge ((\neg r1_xxreal_0\ (k9_newton\ (\\ k2_nat_1\ X2\ np_1))\ X0) \wedge (X1 = k9_newton\ X2)))))) \wedge ((X0 = k6_numbers) \Rightarrow \\ ((X1 = k7_asympt_1\ X0) \Leftrightarrow (X1 = k6_numbers)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1) \Rightarrow (v7_ordinal1\ X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (v1_xboole_0\ X1)) \quad (11)$$

Theorem 1

$$\begin{aligned} \forall X0.(m2_subset_1\ X0\ k1_numbers\ k5_numbers) \Rightarrow (\forall X1. \\ (m2_subset_1\ X1\ k1_numbers\ k5_numbers) \Rightarrow (((r1_xxreal_0\ np_1 \\ X1) \wedge (r1_xxreal_0\ (k9_newton\ X0)\ X1)) \Rightarrow ((r1_xxreal_0\ (k9_newton \\ (k2_nat_1\ X0\ np_1))\ X1) \vee (k7_asympt_1\ X1 = k9_newton\ X0)))) \end{aligned}$$