

t4.asympt\_1  
(TMLZJsk3aii8fQoaQUyX7uTR8r5hTynWjT2)

October 27, 2020

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  $v2\_asympt\_0 : \iota \Rightarrow o$  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  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_asympt\_0 : \iota \Rightarrow \iota$  be given. Let  $k7\_asympt\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\ & ((v2\_asympt\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & k5\_numbers k1\_numbers)))))) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge \\ & (v1\_funct\_2 X1 k5\_numbers k1\_numbers) \wedge ((v2\_asympt\_0 X1) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow (( \\ & X0 \in k7\_asympt\_0 X1) \Leftrightarrow (X1 \in k6\_asympt\_0 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\ & ((v2\_asympt\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & k5\_numbers k1\_numbers)))))) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge \\ & (v1\_funct\_2 X1 k5\_numbers k1\_numbers) \wedge ((v2\_asympt\_0 X1) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow (( \\ & X0 \in k6\_asympt\_0 X1) \Rightarrow (r1\_tarski (k6\_asympt\_0 X0) (k6\_asympt\_0 \\ & X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\ & ((v2\_asympt\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & k5\_numbers k1\_numbers)))))) \Rightarrow (X0 \in k6\_asympt\_0 X0) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1) \Leftrightarrow ((r1\_tarSKI X0 X1) \wedge (r1\_tarSKI X1 X0)) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\ & ((v2\_asympt\_0 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & k5\_numbers k1\_numbers)))))) \Rightarrow (\forall X1.((v1\_funct\_1 X1) \wedge \\ & (v1\_funct\_2 X1 k5\_numbers k1\_numbers) \wedge ((v2\_asympt\_0 X1) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow (( \\ & (r1\_tarSKI (k6\_asympt\_0 X0) (k6\_asympt\_0 X1)) \Rightarrow ((k6\_asympt\_0 \\ X0 = k6\_asympt\_0 X1) \vee ((X0 \in k6\_asympt\_0 X1) \wedge (\neg X0 \in k7\_asympt\_0 X1)))) \wedge \\ & ((X0 \in k6\_asympt\_0 X1) \Rightarrow ((X0 \in k7\_asympt\_0 X1) \vee ((r1\_tarSKI (k6\_asympt\_0 \\ X0) (k6\_asympt\_0 X1)) \wedge (k6\_asympt\_0 X0 \neq k6\_asympt\_0 X1)))))) \end{aligned}$$