

t26_seq_4

(TMFR1SDSQHNPmX6SyLqznyEbBqk29td9eZ8)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_seq_2 : \iota \Rightarrow \iota$ be given. Let $k8_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 \\ & X1 k5_numbers k1_numbers) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k1_numbers)))))) \Rightarrow ((v3_funct_1 X1) \Rightarrow (((\neg X0 \in k1_rvsum_1 \\ & X1) \wedge (\forall X2.(m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow (k8_nat_1 \\ & k1_numbers X1 X2 \neq X0))) \vee (k2_seq_2 X1 = X0)))) \end{aligned} \quad (1)$$

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.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1_funct_1 X1) \wedge ((v1_funct_2 \\ & X1 k5_numbers X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ & X0)))))) \wedge (v7_ordinal1 X2)) \Rightarrow (m1_subset_1 (k8_nat_1 X0 X1 X2) X0) \end{aligned} \quad (5)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1) \Rightarrow (v7_ordinal1\ X0) \quad (7)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers) \Rightarrow (v1_xreal_0\ X0) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (v1_xboole_0\ X1)) \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1\ X0) \wedge ((v1_funct_2\ X0\ k5_numbers\ k1_numbers) \wedge \\ & (m1_subset_1\ X0\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ k1_numbers)))))) \Rightarrow \\ & ((v3_funct_1\ X0) \Rightarrow (\forall X1.(m2_subset_1\ X1\ k1_numbers\ k5_numbers) \Rightarrow \\ & (k2_seq_2\ X0 = k8_nat_1\ k1_numbers\ X0\ X1))) \end{aligned}$$