

t28_real.3

(TMHx7RgLYzDLpNgkBFPJeSFLSU1cyg95wkx)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_real_3 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_real_3 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_int_1 : \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_numbers : \iota$ 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 $k1_numbers : \iota$ 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. Assume the following.

$$\forall X0. \forall X1. \neg(v1_xboole_0 X0) \wedge ((X0 \neq X1) \wedge (v1_xboole_0 X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v7_ordinal1 X0) \Rightarrow (\forall X1. (v7_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (((k1_seq_1 (k3_real_3 X2) X0 = k6_numbers) \wedge \\ & r1_xxreal_0 X0 X1) \Rightarrow (k1_seq_1 (k3_real_3 X2) X1 = k6_numbers)))))) \end{aligned} \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$(v1_xboole_0 (k1_int_1 k6_numbers)) \wedge (v1_int_1 (k1_int_1 k6_numbers)) \quad (4)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_xreal_0 X0) \Rightarrow ((v5_relat_1 (k4_real_3 X0) k4_numbers) \wedge \\ & ((v1_funct_1 (k4_real_3 X0)) \wedge ((v1_funct_2 (k4_real_3 X0) k5_numbers \\ & k1_numbers) \wedge (m1_subset_1 (k4_real_3 X0) (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers k1_numbers)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.((v5_relat_1 X1 k4_numbers) \wedge \\
& ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge (m1_subset_1 \\
& X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow ((\\
& X1 = k4_real_3 X0) \Leftrightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (k1_seq_1 X1 X2 = \\
& k1_int_1 (k1_seq_1 (k3_real_3 X0) X2))))))
\end{aligned} \tag{7}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\forall X2. \\
& (v1_xreal_0 X2) \Rightarrow (((k1_seq_1 (k3_real_3 X2) X0 = k6_numbers) \wedge (\\
& r1_xxreal_0 X0 X1) \Rightarrow (k1_seq_1 (k4_real_3 X2) X1 = k6_numbers))))))
\end{aligned}$$