

t10_pdiff_9

(TMWFEzPCMvbna5MhE3btYqFD8qTW19DER9Y)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_real_ns1 : \iota \Rightarrow \iota$ be given. Let $v1_pdiff_7 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_nfcont_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (1)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (2)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (3)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 k5_numbers)) \Rightarrow \\ (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow ((\\ v1_pdiff_7 X1 X0) \Leftrightarrow (\exists X2. (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 \\ (k4_real_ns1 X0)))) \wedge ((X2 = X1) \wedge (v3_nfcont_1 X2 (k4_real_ns1 X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\ & \quad (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 (k4_real_ns1 X0)))) \Rightarrow \\ & ((X1 = X2) \Rightarrow ((v1_pdiff_7 X1 X0) \Leftrightarrow (v3_nfcont_1 X2 (k4_real_ns1 X0))))) \end{aligned}$$