

t6_pdiff_2

(TMW888xWyifFZKZrLx2VLLGecKp2g4P57FZ)

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Let $v1_funct_1 : \iota \Rightarrow o$ 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 $k1_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_fdiff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_pdiff_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k15_euclid np_2))) \Rightarrow \\ & (\exists X1.(m1_subset_1 X1 k1_numbers) \wedge (\exists X2.(m1_subset_1 \\ & X2 k1_numbers) \wedge (X0 = k10_finseq_1 X1 X2))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_numbers) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers (k1_euclid \\ & np_2)) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k1_euclid np_2) k1_numbers)))) \Rightarrow (((X2 = k10_finseq_1 \\ & X0 X1) \wedge (r3_pdiff_1 np_2 np_2 X3 X2)) \Rightarrow (r1_fdiff_1 (k1_pdiff_2 \\ & np_2 np_2 X3 X2) X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & (k1_relset_1 (k1_euclid np_2) (k1_pdiff_1 np_2 np_2) = k1_euclid \\ & np_2) \wedge ((k2_relset_1 k1_numbers (k1_pdiff_1 np_2 np_2) = k1_numbers) \wedge \\ & (\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k1_numbers) \Rightarrow (k1_seq_1 (k1_pdiff_1 np_2 np_2) (k10_finseq_1 \\ & X0 X1) = X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (u1_struct_0 (k15_euclid X0) = k1_euclid X0) \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\neg v1_xboole_0 np_2 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (7)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (m1_finseq_2 (k1_euclid X0) k1_numbers) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.((v1_funct_1 \\ & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k1_euclid X0) \\ & k1_numbers)))) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers (k1_euclid \\ & X0)) \Rightarrow (k1_pdiff_2 X0 X1 X2 X3 = k1_partfun1 k1_numbers (k1_euclid \\ & X0) (k1_euclid X0) k1_numbers (k6_pdiff_1 X0 X1 X3) X2)))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\ & (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2. \\ & ((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (\\ & k1_euclid X0) k1_numbers)))) \Rightarrow (\forall X3.(m2_finseq_2 X3 k1_numbers \\ & (k1_euclid X0)) \Rightarrow ((r3_pdiff_1 X0 X1 X2 X3) \Leftrightarrow (r1_fdiff_1 (k1_partfun1 \\ & k1_numbers (k1_euclid X0) (k1_euclid X0) k1_numbers (k6_pdiff_1 \\ & X0 X1 X3) X2) (k1_seq_1 (k1_pdiff_1 X1 X0) X3)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_funct_1 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\ (k1_euclid\ np_2) k1_numbers)))) \Rightarrow (\forall X1.(m2_finseq_2 X1 \\ k1_numbers (k1_euclid\ np_2)) \Rightarrow ((\exists X2.(m1_subset_1 X2 k1_numbers) \wedge \\ (\exists X3.(m1_subset_1 X3 k1_numbers) \wedge ((X1 = k10_finseq_1 X2 \\ X3) \wedge (r1_fdiff_1 (k1_pdiff_2\ np_2\ np_2 X0 X1) X3)))) \Leftrightarrow (r3_pdiff_1 \\ np_2\ np_2 X0 X1))) \end{aligned}$$