

t3_pdiff_2

(TMEoTTVqA1TTBa9SpohzvKkW6iuQmWGiyrv)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r3_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $r1_fdiff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_pdiff_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v2_xxreal_0 : \iota \Rightarrow o$ 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 $k1_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & (k1_relset_1 (k1_euclid\ np_2) (k1_pdiff_1\ np_1\ np_2) = k1_euclid \\
 & np_2) \wedge ((k2_relset_1\ k1_numbers\ (k1_pdiff_1\ np_1\ np_2) = k1_numbers) \wedge \\
 & (\forall X0.(m1_subset_1\ X0\ k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
 & X1\ k1_numbers) \Rightarrow (k1_seq_1\ (k1_pdiff_1\ np_1\ np_2)\ (k10_finseq_1 \\
 & X0\ X1) = X0))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & ((v2_xxreal_0\ np_2) \wedge (m2_subset_1\ np_2\ k1_numbers\ k5_numbers)) \wedge \\
 & ((m1_subset_1\ np_2\ k5_numbers) \wedge (m1_subset_1\ np_2\ k1_numbers))
 \end{aligned} \tag{2}$$

Assume the following.

$$\neg v1_xboole_0\ np_2 \tag{3}$$

Assume the following.

$$\begin{aligned}
 & ((v2_xxreal_0\ np_1) \wedge (m2_subset_1\ np_1\ k1_numbers\ k5_numbers)) \wedge \\
 & ((m1_subset_1\ np_1\ k5_numbers) \wedge (m1_subset_1\ np_1\ k1_numbers))
 \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2. ((v1_funct_1 \\
& X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k1_euclid X0) \\
& k1_numbers)))) \Rightarrow (\forall X3. (m2_finseq_2 X3 k1_numbers (k1_euclid \\
& X0)) \Rightarrow (k1_pdiff_2 X0 X1 X2 X3 = k1_partfun1 k1_numbers (k1_euclid \\
& X0) (k1_euclid X0) k1_numbers (k6_pdiff_1 X0 X1 X3) X2))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\
& (\forall X1. (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2. \\
& ((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (\\
& k1_euclid X0) k1_numbers)))) \Rightarrow (\forall X3. (m2_finseq_2 X3 k1_numbers \\
& (k1_euclid X0)) \Rightarrow ((r3_pdiff_1 X0 X1 X2 X3) \Leftrightarrow (r1_fdiff_1 (k1_partfun1 \\
& k1_numbers (k1_euclid X0) (k1_euclid X0) k1_numbers (k6_pdiff_1 \\
& X0 X1 X3) X2) (k1_seq_1 (k1_pdiff_1 X1 X0) X3))))))
\end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k1_numbers) \Rightarrow (\forall X2.(m2_finseq_2 X2 k1_numbers (k1_euclid \\
& np_2)) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (k1_euclid np_2) k1_numbers)))) \Rightarrow (((X2 = k10_finseq_1 \\
& X0 X1) \wedge (r3_pdiff_1 np_2 np_1 X3 X2)) \Rightarrow (r1_fdiff_1 (k1_pdiff_2 \\
& np_2 np_1 X3 X2) X0))))))
\end{aligned}$$