

t26_pdiff_9

(TMKY3M58QE2HZvdMmp22Q3Nu226tLjsAyid)

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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 $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_pdiff_7 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $r2_pdiff_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r4_pdiff_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_pdiff_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_pdiff_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k12_euclid : \iota \Rightarrow \iota$ be given. Let $k8_euclid : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_pdiff_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_real_ns1 : \iota \Rightarrow \iota$ be given. Let $r2_ndiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r3_nfcont_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k16_lopban_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ndiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v1_normsp_1 : \iota \Rightarrow o$ be given. Let $l1_normsp_1 : \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_euclid : \iota \Rightarrow \iota$ be given. Let $r1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k1_real_ns1 : \iota \Rightarrow \iota$ be given. Let $u1_rlvect_1 : \iota \Rightarrow \iota$ be given. Let $k2_real_ns1 : \iota \Rightarrow \iota$ be given. Let $u1_normsp_0 : \iota \Rightarrow \iota$ be given.

Let $k3_real_ns1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\
& (\forall X1.((\neg v1_xboole_0 X1) \wedge (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_euclid X1)))))) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (k4_real_ns1 \\
& X0)) (u1_struct_0 (k4_real_ns1 X1)))))) \Rightarrow (\forall X4.(m1_subset_1 \\
& X4 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow (\forall X5.(m1_subset_1 X5 \\
& (k1_zfmisc_1 (u1_struct_0 (k4_real_ns1 X0)))) \Rightarrow ((v1_pdiff_7 \\
& X4 X0) \wedge (r1_tarSKI X4 (k1_relset_1 (k1_euclid X0) X2)) \wedge ((X3 = X2) \wedge \\
& (X4 = X5))) \Rightarrow (((r2_ndiff_1 X5 (k4_real_ns1 X0) (k4_real_ns1 X1) \\
& X3) \wedge (r3_nfcont_1 (k4_real_ns1 X0) (k16_lopban_1 (k4_real_ns1 \\
& X0) (k4_real_ns1 X1)) (k4_ndiff_1 (k4_real_ns1 X0) (k4_real_ns1 \\
& X1) X3 X5) X5)) \Rightarrow ((r1_pdiff_6 X4 X1 X0 X2) \wedge (\forall X6.(m2_finseq_2 \\
& X6 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X7.(m1_subset_1 X7 k1_numbers) \Rightarrow \\
& (\neg (X6 \in X4) \wedge (\neg r1_xxreal_0 X7 k6_numbers) \wedge (\forall X8.(m1_subset_1 \\
& X8 k1_numbers) \Rightarrow (\neg (\neg r1_xxreal_0 X8 k6_numbers) \wedge (\forall X9.(\\
& m2_finseq_2 X9 k1_numbers (k1_euclid X0)) \Rightarrow ((X9 \in X4) \Rightarrow ((r1_xxreal_0 \\
& X8 (k12_euclid (k8_euclid X0 X9 X6))) \vee (\forall X10.(m2_finseq_2 \\
& X10 k1_numbers (k1_euclid X0)) \Rightarrow (r1_xxreal_0 (k12_euclid (k8_euclid \\
& X1 (k1_pdiff_6 X0 X1 (k8_pdiff_1 X0 X1 X2 X9) X10) (k1_pdiff_6 X0 X1 \\
& (k8_pdiff_1 X0 X1 X2 X6) X10))) (k11_binop_2 X7 (k12_euclid X10))))))))) \wedge \\
& (((r1_pdiff_6 X4 X1 X0 X2) \wedge (\forall X6.(m2_finseq_2 X6 k1_numbers \\
& (k1_euclid X0)) \Rightarrow (\forall X7.(m1_subset_1 X7 k1_numbers) \Rightarrow (\neg (\\
& X6 \in X4) \wedge (\neg r1_xxreal_0 X7 k6_numbers) \wedge (\forall X8.(m1_subset_1 \\
& X8 k1_numbers) \Rightarrow (\neg (\neg r1_xxreal_0 X8 k6_numbers) \wedge (\forall X9.(\\
& m2_finseq_2 X9 k1_numbers (k1_euclid X0)) \Rightarrow ((X9 \in X4) \Rightarrow ((r1_xxreal_0 \\
& X8 (k12_euclid (k8_euclid X0 X9 X6))) \vee (\forall X10.(m2_finseq_2 \\
& X10 k1_numbers (k1_euclid X0)) \Rightarrow (r1_xxreal_0 (k12_euclid (k8_euclid \\
& X1 (k1_pdiff_6 X0 X1 (k8_pdiff_1 X0 X1 X2 X9) X10) (k1_pdiff_6 X0 X1 \\
& (k8_pdiff_1 X0 X1 X2 X6) X10))) (k11_binop_2 X7 (k12_euclid X10))))))))) \Rightarrow \\
& ((r2_ndiff_1 X5 (k4_real_ns1 X0) (k4_real_ns1 X1) X3) \wedge (r3_nfcont_1 \\
& (k4_real_ns1 X0) (k16_lopban_1 (k4_real_ns1 X0) (k4_real_ns1 \\
& X1)) (k4_ndiff_1 (k4_real_ns1 X0) (k4_real_ns1 X1) X3 X5) X5)))))) \Rightarrow \\
& (1)
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\
& (\forall X1.((\neg v1_xboole_0 X1) \wedge (m2_subset_1 X1 k1_numbers k5_numbers)) \Rightarrow \\
& (\forall X2.((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (k1_euclid X0) (k1_euclid X1)))))) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (k4_real_ns1 \\
& X0)) (u1_struct_0 (k4_real_ns1 X1)))))) \Rightarrow (\forall X4.(m1_subset_1 \\
& X4 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow (\forall X5.(m1_subset_1 X5 \\
& (k1_zfmisc_1 (u1_struct_0 (k4_real_ns1 X0)))) \Rightarrow (((X4 = X5) \wedge ((\\
& v1_pdiff_7 X4 X0) \wedge (X2 = X3))) \Rightarrow ((\forall X6.(m2_subset_1 X6 k1_numbers \\
& k5_numbers) \Rightarrow ((r1_xxreal_0 np_1 X6) \wedge (r1_xxreal_0 X6 X0)) \Rightarrow (\\
& (r2_pdiff_7 X0 X1 X6 X2 X4) \wedge (r4_pdiff_7 X0 X1 (k2_pdiff_7 X0 X1 X6 \\
& X2 X4) X4))) \Leftrightarrow ((r2_ndiff_1 X5 (k4_real_ns1 X0) (k4_real_ns1 X1) \\
& X3) \wedge (r3_nfcont_1 (k4_real_ns1 X0) (k16_lopban_1 (k4_real_ns1 \\
& X0) (k4_real_ns1 X1)) (k4_ndiff_1 (k4_real_ns1 X0) (k4_real_ns1 \\
& X1) X3 X5) X5)))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\
& X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1))
\end{aligned} \tag{3}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{4}$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((\neg v2_struct_0 \\
& (k4_real_ns1 X0)) \wedge ((\neg v7_struct_0 (k4_real_ns1 X0)) \wedge (v1_normsp_1 \\
& (k4_real_ns1 X0))))
\end{aligned} \tag{6}$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \tag{7}$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (v7_ordinal1 X0) \Rightarrow ((\neg v2_struct_0 (k4_real_ns1 X0)) \wedge \\
& ((v1_normsp_1 (k4_real_ns1 X0)) \wedge (l1_normsp_1 (k4_real_ns1 X0))))
\end{aligned} \tag{9}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v2_struct_0\ X1) \wedge \\
& ((v1_normsp_1\ X1) \wedge (l1_normsp_1\ X1))) \Rightarrow ((X1 = k4_real_ns1\ X0) \Leftrightarrow \\
& ((u1_struct_0\ X1 = k1_euclid\ X0) \wedge ((k4_struct_0\ X1 = k5_euclid\ X0) \wedge \\
& ((r1_funct_2\ (k2_zfmisc_1\ (u1_struct_0\ X1)\ (u1_struct_0\ X1)) \\
& (u1_struct_0\ X1)\ (k2_zfmisc_1\ (k1_euclid\ X0)\ (k1_euclid\ X0))\ (\\
& k1_euclid\ X0)\ (u1_algstr_0\ X1)\ (k1_real_ns1\ X0)) \wedge ((r1_funct_2 \\
& (k2_zfmisc_1\ k1_numbers\ (u1_struct_0\ X1))\ (u1_struct_0\ X1)\ (k2_zfmisc_1 \\
& k1_numbers\ (k1_euclid\ X0))\ (k1_euclid\ X0)\ (u1_rlvect_1\ X1)\ (k2_real_ns1 \\
& X0)) \wedge (r1_funct_2\ (u1_struct_0\ X1)\ k1_numbers\ (k1_euclid\ X0)\ k1_numbers \\
& (u1_normsp_0\ X1)\ (k3_real_ns1\ X0)))))))))
\end{aligned} \tag{10}$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1) \Rightarrow (v7_ordinal1\ X0) \tag{11}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0\ X0) \wedge (m2_subset_1\ X0\ k1_numbers\ k5_numbers)) \Rightarrow \\
& (\forall X1.((\neg v1_xboole_0\ X1) \wedge (m2_subset_1\ X1\ k1_numbers\ k5_numbers)) \Rightarrow \\
& (\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k1_euclid\ X0)))) \Rightarrow (\forall X3. \\
& ((v1_funct_1\ X3) \wedge (m1_subset_1\ X3\ (k1_zfmisc_1\ (k2_zfmisc_1\ (\\
& k1_euclid\ X0)\ (k1_euclid\ X1)))))) \Rightarrow (((v1_pdiff_7\ X2\ X0) \wedge (r1_tarski \\
& X2\ (k1_relset_1\ (k1_euclid\ X0)\ X3))) \Rightarrow ((\forall X4.(m2_subset_1 \\
& X4\ k1_numbers\ k5_numbers) \Rightarrow (((r1_xxreal_0\ np_1\ X4) \wedge (r1_xxreal_0 \\
& X4\ X0)) \Rightarrow ((r2_pdiff_7\ X0\ X1\ X4\ X3\ X2) \wedge (r4_pdiff_7\ X0\ X1\ (k2_pdiff_7 \\
& X0\ X1\ X4\ X3\ X2)\ X2)))) \Leftrightarrow ((r1_pdiff_6\ X2\ X1\ X0\ X3) \wedge (\forall X4.(m2_finseq_2 \\
& X4\ k1_numbers\ (k1_euclid\ X0)) \Rightarrow (\forall X5.(m1_subset_1\ X5\ k1_numbers) \Rightarrow \\
& (\neg(X4 \in X2) \wedge (\neg r1_xxreal_0\ X5\ k6_numbers) \wedge (\forall X6.(m1_subset_1 \\
& X6\ k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0\ X6\ k6_numbers) \wedge (\forall X7.(\\
& m2_finseq_2\ X7\ k1_numbers\ (k1_euclid\ X0)) \Rightarrow ((X7 \in X2) \Rightarrow ((r1_xxreal_0 \\
& X6\ (k12_euclid\ (k8_euclid\ X0\ X7\ X4))) \vee (\forall X8.(m2_finseq_2 \\
& X8\ k1_numbers\ (k1_euclid\ X0)) \Rightarrow (r1_xxreal_0\ (k12_euclid\ (k8_euclid \\
& X1\ (k1_pdiff_6\ X0\ X1\ (k8_pdiff_1\ X0\ X1\ X3\ X7)\ X8)\ (k1_pdiff_6\ X0\ X1 \\
& (k8_pdiff_1\ X0\ X1\ X3\ X4)\ X8)))\ (k11_binop_2\ X5\ (k12_euclid\ X8))))))))))))))
\end{aligned}$$