

t80_pdiff_9

(TMJ9XvzRLrnJaEhK9Hd1LfZu1yEBy3aGDV8)

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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 $r5_pdiff_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k47_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $r4_pdiff_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_pdiff_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. ((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\
 & \quad (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow (\forall X2. \\
 & \quad \quad ((\neg v1_xboole_0 X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow (\forall X3. \\
 & \quad \quad \quad ((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (\\
 & \quad \quad \quad \quad k1_euclid X0) k1_numbers)))) \Rightarrow (\forall X4. ((v1_funct_1 X4) \wedge (\\
 & \quad \quad \quad \quad m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (k1_euclid X0) k1_numbers)))) \Rightarrow \\
 & \quad \quad \quad \quad (((v1_pdiff_7 X1 X0) \wedge ((r1_tarski (k1_rvsum_1 X2) (k2_finseq_1 \\
 & \quad \quad \quad \quad X0)) \wedge ((r4_pdiff_9 X0 X1 X2 X3) \wedge (r4_pdiff_9 X0 X1 X2 X4)))) \Rightarrow ((r4_pdiff_9 \\
 & \quad \quad \quad \quad X0 X1 X2 (k47_valued_1 (k1_euclid X0) k1_numbers k1_numbers X3 X4)) \wedge \\
 & \quad \quad \quad \quad (r2_relset_1 (k1_euclid X0) k1_numbers (k5_pdiff_9 X0 X1 X2 (k47_valued_1 \\
 & \quad \quad \quad \quad (k1_euclid X0) k1_numbers k1_numbers X3 X4)) (k47_valued_1 (k1_euclid \\
 & \quad \quad \quad \quad X0) k1_numbers k1_numbers (k5_pdiff_9 X0 X1 X2 X3) (k5_pdiff_9 X0 \\
 & \quad \quad \quad \quad X1 X2 X4)))))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\
& (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow (\forall X2. \\
& ((\neg v1_xboole_0 X2) \wedge (m2_finseq_1 X2 k5_numbers)) \Rightarrow (\forall X3. \\
& ((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (\\
& k1_euclid X0) k1_numbers)))) \Rightarrow (\forall X4.((v1_funct_1 X4) \wedge (\\
& m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (k1_euclid X0) k1_numbers)))) \Rightarrow \\
& (((v1_pdiff_7 X1 X0) \wedge ((r1_tarski (k1_rvsum_1 X2) (k2_finseq_1 \\
& X0)) \wedge ((r4_pdiff_9 X0 X1 X2 X3) \wedge (r4_pdiff_9 X0 X1 X2 X4)))) \Rightarrow ((r4_pdiff_9 \\
& X0 X1 X2 (k3_valued_1 (k1_euclid X0) k1_numbers k1_numbers X3 X4)) \wedge \\
& (r2_relset_1 (k1_euclid X0) k1_numbers (k5_pdiff_9 X0 X1 X2 (k3_valued_1 \\
& (k1_euclid X0) k1_numbers k1_numbers X3 X4)) (k3_valued_1 (k1_euclid \\
& X0) k1_numbers k1_numbers (k5_pdiff_9 X0 X1 X2 X3) (k5_pdiff_9 X0 \\
& X1 X2 X4)))))))))
\end{aligned} \tag{2}$$

Assume the following.

$$v3_membered k1_numbers \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((v3_membered \\
& X1) \wedge ((v3_membered X2) \wedge (((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X1)))) \wedge ((v1_funct_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X2)))))) \Rightarrow ((v1_funct_1 (k47_valued_1 X0 X1 X2 \\
& X3 X4)) \wedge (m1_subset_1 (k47_valued_1 X0 X1 X2 X3 X4) (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 k1_numbers))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((v3_membered \\
& X1) \wedge ((v3_membered X2) \wedge (((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X1)))) \wedge ((v1_funct_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X2)))))) \Rightarrow ((v1_funct_1 (k3_valued_1 X0 X1 X2 X3 \\
& X4)) \wedge (m1_subset_1 (k3_valued_1 X0 X1 X2 X3 X4) (k1_zfmisc_1 (k2_zfmisc_1 \\
& X0 k1_numbers))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\
& (\forall X1.((v1_funct_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (k1_euclid X0) k1_numbers)))) \Rightarrow (\forall X2.(m2_subset_1 X2 k1_numbers \\
& k5_numbers) \Rightarrow (\forall X3.(r5_pdiff_9 X0 X1 X2 X3) \Leftrightarrow (\forall X4. \\
& ((\neg v1_xboole_0 X4) \wedge (m2_finseq_1 X4 k5_numbers)) \Rightarrow (((r1_xxreal_0 \\
& (k3_finseq_1 X4) X2) \wedge (r1_tarski (k1_rvsum_1 X4) (k2_finseq_1 \\
& X0)))) \Rightarrow (r4_pdiff_9 X0 X3 X4 X1))))))
\end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\ (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2. \\ (m1_subset_1 X2 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow (\forall X3.((\\ v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k1_euclid \\ X0) k1_numbers)))) \Rightarrow (\forall X4.((v1_funct_1 X4) \wedge (m1_subset_1 \\ X4 (k1_zfmisc_1 (k2_zfmisc_1 (k1_euclid X0) k1_numbers)))) \Rightarrow (\\ ((v1_pdiff_7 X2 X0) \wedge ((r5_pdiff_9 X0 X3 X1 X2) \wedge (r5_pdiff_9 X0 X4 \\ X1 X2))) \Rightarrow ((r5_pdiff_9 X0 (k3_valued_1 (k1_euclid X0) k1_numbers \\ k1_numbers X3 X4) X1 X2) \wedge (r5_pdiff_9 X0 (k47_valued_1 (k1_euclid \\ X0) k1_numbers k1_numbers X3 X4) X1 X2)))))) \end{aligned}$$