

t81_pdiff_9

(TMS4VxhBRHyKK21Gmog9U4XFs5AZZrk5xX8)

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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 $k26_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_xreal_0 : \iota \Rightarrow o$ 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.

$$\begin{aligned}
 & \forall X0. ((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\
 & \quad (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k1_euclid X0))) \Rightarrow (\forall X2. \\
 & \quad \quad (m1_subset_1 X2 k1_numbers) \Rightarrow (\forall X3. ((\neg v1_xboole_0 X3) \wedge \\
 & \quad \quad \quad (m2_finseq_1 X3 k5_numbers)) \Rightarrow (\forall X4. ((v1_funct_1 X4) \wedge \\
 & \quad \quad \quad m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (k1_euclid X0) k1_numbers)))) \Rightarrow \\
 & \quad \quad \quad (((v1_pdiff_7 X1 X0) \wedge (r1_tarski (k1_rvsum_1 X3) (k2_finseq_1 \\
 & \quad \quad \quad X0)) \wedge (r4_pdiff_9 X0 X1 X3 X4))) \Rightarrow ((r4_pdiff_9 X0 X1 X3 (k26_valued_1 \\
 & \quad \quad \quad (k1_euclid X0) k1_numbers X4 X2)) \wedge (r2_relset_1 (k1_euclid X0) \\
 & \quad \quad \quad k1_numbers (k5_pdiff_9 X0 X1 X3 (k26_valued_1 (k1_euclid X0) k1_numbers \\
 & \quad \quad \quad X4 X2)) (k26_valued_1 (k1_euclid X0) k1_numbers (k5_pdiff_9 X0 \\
 & \quad \quad \quad X1 X3 X4) X2)))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$v3_membered k1_numbers \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((v3_membered\ X1)\wedge \\ & (((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & X0\ X1))))\wedge(v1_xreal_0\ X3)))\Rightarrow((v1_funct_1\ (k26_valued_1\ X0\ X1 \\ & X2\ X3))\wedge(m1_subset_1\ (k26_valued_1\ X0\ X1\ X2\ X3)\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & X0\ k1_numbers)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0\ X0)\wedge(m2_subset_1\ X0\ k1_numbers\ k5_numbers))\Rightarrow \\ & (\forall X1.((v1_funct_1\ X1)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ & (k1_euclid\ X0)\ k1_numbers))))\Rightarrow(\forall X2.(m2_subset_1\ X2\ k1_numbers \\ & k5_numbers)\Rightarrow(\forall X3.(r5_pdiff_9\ X0\ X1\ X2\ X3)\Leftrightarrow(\forall X4. \\ & ((\neg v1_xboole_0\ X4)\wedge(m2_finseq_1\ X4\ k5_numbers))\Rightarrow(((r1_xxreal_0 \\ & (k3_finseq_1\ X4)\ X2)\wedge(r1_tarski\ (k1_rvsum_1\ X4)\ (k2_finseq_1 \\ & X0))))\Rightarrow(r4_pdiff_9\ X0\ X3\ X4\ X1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(v3_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow (v1_xreal_0\ X1)) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0\ X0)\wedge(m2_subset_1\ X0\ k1_numbers\ k5_numbers))\Rightarrow \\ & (\forall X1.(m2_subset_1\ X1\ k1_numbers\ k5_numbers)\Rightarrow(\forall X2. \\ & (m1_subset_1\ X2\ (k1_zfmisc_1\ (k1_euclid\ X0))))\Rightarrow(\forall X3.((\\ & v1_funct_1\ X3)\wedge(m1_subset_1\ X3\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k1_euclid \\ & X0)\ k1_numbers))))\Rightarrow(\forall X4.(m1_subset_1\ X4\ k1_numbers)\Rightarrow \\ & (((v1_pdiff_7\ X2\ X0)\wedge(r5_pdiff_9\ X0\ X3\ X1\ X2))\Rightarrow(r5_pdiff_9\ X0\ (\\ & k26_valued_1\ (k1_euclid\ X0)\ k1_numbers\ X3\ X4)\ X1\ X2)))))) \end{aligned}$$