

t35_pdiff_9 (TMMxBbLnZEUdJYWPf- muqUQu7LCbVmuoi5Em)

October 27, 2020

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 $v1_funct_1 : \iota \Rightarrow o$ 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 $r4_pdiff_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_nfcont_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_rerset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_integr15 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_binop_2 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ 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 $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 (k1_euclid X0)))))) \Rightarrow (r2_rerset_1 \\ & X1 (k1_euclid X0) (k9_integr15 X0 (k7_binop_2 np_1) X1 X2) (k2_nfcont_4 \\ & X0 X1 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge (m2_subset_1 X0 k1_numbers k5_numbers)) \Rightarrow \\ & (\forall X1. ((\neg v1_xboole_0 X1) \wedge (m2_subset_1 X1 k1_numbers k5_numbers)) \Rightarrow \\ & (\forall X2. \forall X3. (m1_subset_1 X3 k1_numbers) \Rightarrow (\forall X4. \\ & ((v1_funct_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (\\ & k1_euclid X0) (k1_euclid X1)))))) \Rightarrow (\forall X5. ((v1_funct_1 X5) \wedge \\ & (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 (k1_euclid X0) (k1_euclid \\ & X1)))))) \Rightarrow ((r4_pdiff_7 X0 X1 X4 X2) \Rightarrow (r4_pdiff_7 X0 X1 (k9_integr15 \\ & X1 X3 (k1_euclid X0) X4) X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))))\Rightarrow((r2_relset_1 X0 X1 X2 X3)\Leftrightarrow(X2 = X3)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 X0))))\Rightarrow(\forall X2.(m2_subset_1 X2 X0 X1)\Leftrightarrow(m1_subset_1 X2 X1)) \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (7)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (8)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(\neg v1_xboole_0 (k1_euclid X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v7_ordinal1 X0)\wedge((v1_xreal_0 X1)\wedge((v1_funct_1 X3)\wedge(m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X2 (k1_euclid X0)))))))\Rightarrow((v1_funct_1 (k9_integr15 X0 X1 X2 X3))\wedge(m1_subset_1 (k9_integr15 X0 X1 X2 X3) (k1_zfmisc_1 (k2_zfmisc_1 X2 (k1_euclid X0)))))) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(m1_subset_1 (k7_binop_2 X0) k1_numbers) \quad (11)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X0 k5_numbers)\wedge((\neg v1_xboole_0 X1)\wedge((v1_funct_1 X2)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 (k1_euclid X0)))))))\Rightarrow((v1_funct_1 (k2_nfcont_4 X0 X1 X2))\wedge(m1_subset_1 (k2_nfcont_4 X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 X1 (k1_euclid X0)))))) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (14)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (15)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0)\wedge(m2_subset_1 X0 k1_numbers k5_numbers))\Rightarrow \\ & (\forall X1.((\neg v1_xboole_0 X1)\wedge(m2_subset_1 X1 k1_numbers k5_numbers))\Rightarrow \\ & (\forall X2.\forall X3.((v1_funct_1 X3)\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k1_euclid X0) (k1_euclid X1))))))\Rightarrow(\forall X4.(\\ & (v1_funct_1 X4)\wedge(m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 (k1_euclid \\ & X0) (k1_euclid X1))))))\Rightarrow((r4_pdif_7 X0 X1 X3 X2)\Rightarrow(r4_pdif_7 X0 \\ & X1 (k2_nfcont_4 X1 (k1_euclid X0) X3) X2)))))) \end{aligned}$$