

l15_cfdiff_2

(TMTQe1bFxpRLcgtbqkRUgb84mB3hCqfkS6W)

October 27, 2020

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 $np_2 : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarSKI : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_funct_1 : \iota \Rightarrow \iota$ be given. Let $k1_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_funct_1 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarSKI X0 X1) \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v1_funct_1 (k2_funct_1 (k1_pdiff_1 np_1 np_1))) \wedge ((v1_funct_2 \\ & (k2_funct_1 (k1_pdiff_1 np_1 np_1)) k1_numbers (k1_euclid np_1)) \wedge \\ & (m1_subset_1 (k2_funct_1 (k1_pdiff_1 np_1 np_1)) (k1_zfmisc_1 \\ & (k2_zfmisc_1 k1_numbers (k1_euclid np_1)))))) \wedge ((v2_funct_1 \\ & (k2_funct_1 (k1_pdiff_1 np_1 np_1))) \wedge ((k9_xtuple_0 (k2_funct_1 \\ & (k1_pdiff_1 np_1 np_1)) = k1_numbers) \wedge ((k10_xtuple_0 (k2_funct_1 \\ & (k1_pdiff_1 np_1 np_1)) = k1_euclid np_1) \wedge (\exists X0. ((v1_funct_1 \\ & X0) \wedge ((v1_funct_2 X0 k1_numbers (k1_euclid np_1)) \wedge (m1_subset_1 \\ & X0 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers (k1_euclid np_1)))))) \wedge \\ & ((v3_funct_2 X0 k1_numbers (k1_euclid np_1)) \wedge (k2_funct_1 (k1_pdiff_1 \\ & np_1 np_1) = X0)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_relat_1 X0) \Rightarrow (\forall X1.(v1_relat_1 X1) \Rightarrow ((r1_tarski \\ (k10_xtuple_0 X0) (k9_xtuple_0 X1)) \Rightarrow (k9_xtuple_0 (k3_relat_1 \\ X0 X1) = k9_xtuple_0 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} (\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow ((X0 \in k2_finseq_1 X1) \Rightarrow \\ ((k1_relset_1 (k1_euclid X1) (k1_pdiff_1 X0 X1) = k1_euclid X1) \wedge \\ (k1_rvsum_1 (k1_pdiff_1 X0 X1) = k1_numbers)))))) \wedge (\forall X0. \\ (m1_subset_1 X0 k1_numbers) \Rightarrow ((k1_seq_1 (k1_pdiff_1 np_1 np_1) \\ (k12_finseq_1 k1_numbers X0) = X0) \wedge (k1_funct_1 (k2_funct_1 (k1_pdiff_1 \\ np_1 np_1)) X0 = k12_finseq_1 k1_numbers X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_relat_1 X1) \wedge (v1_funct_1 X1)) \Rightarrow (\forall X2. \\ ((v1_relat_1 X2) \wedge (v1_funct_1 X2)) \Rightarrow ((X0 \in k9_xtuple_0 X1) \Rightarrow (k1_funct_1 \\ (k3_relat_1 X1 X2) X0 = k1_funct_1 X2 (k1_funct_1 X1 X0)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \Rightarrow (k1_rvsum_1 X0 = k10_xtuple_0 X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1) \wedge (v4_relat_1 X1 X0)) \Rightarrow (k1_relset_1 X0 X1 = k9_xtuple_0 X1) \quad (9)$$

Assume the following.

$$v3_membered k1_numbers \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v1_relat_1 X1) \wedge ((v5_relat_1 \\ X1 X0) \wedge (v1_funct_1 X1))) \Rightarrow (m1_subset_1 (k7_partfun1 X0 X1 X2) X0) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v7_ordinal1\ X0)\wedge((v1_funct_1\ X1)\wedge(m1_subset_1 \\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k1_euclid\ X0)\ k1_numbers))))\Rightarrow \\ ((v1_funct_1\ (k3_pdiff_1\ X0\ X1))\wedge(m1_subset_1\ (k3_pdiff_1\ X0 \\ X1)\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k1_euclid\ X0)\ (k1_euclid\ np_1)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1\ X0)\wedge(v3_valued_0\ X0))\Rightarrow(m1_subset_1 \\ (k1_rsum_1\ X0)\ (k1_zfmisc_1\ k1_numbers)) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_relat_1\ X1)\wedge((v5_relat_1\ X1\ X0)\wedge(\\ v1_funct_1\ X1)))\Rightarrow(\forall X2.(X2 \in k9_xtuple_0\ X1)\Rightarrow(k7_partfun1 \\ X0\ X1\ X2 = k1_funct_1\ X1\ X2)) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1\ X0)\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge(m1_subset_1 \\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k1_euclid\ X0)\ k1_numbers))))\Rightarrow(\\ k3_pdiff_1\ X0\ X1 = k3_relat_1\ X1\ (k2_funct_1\ (k1_pdiff_1\ np_1\ np_1)))) \end{aligned} \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k4_ordinal1)\Rightarrow(v7_ordinal1\ X0) \quad (16)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\ (k2_zfmisc_1\ X0\ X1)))\Rightarrow((v4_relat_1\ X2\ X0)\wedge(v5_relat_1\ X2\ X1)) \end{aligned} \quad (17)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1 \\ (k2_zfmisc_1\ X0\ X1)))\Rightarrow(v1_relat_1\ X2) \end{aligned} \quad (18)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(v3_membered\ X1)\Rightarrow(\forall X2.(m1_subset_1 \\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))\Rightarrow(v3_valued_0\ X2)) \end{aligned} \quad (19)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_funct_1\ X0)\wedge(m1_subset_1\ X0\ (k1_zfmisc_1\ (k2_zfmisc_1 \\ (k1_euclid\ np_2)\ k1_numbers))))\Rightarrow(\forall X1.(m1_subset_1\ X1 \\ k1_numbers)\Rightarrow(\forall X2.(m1_subset_1\ X2\ k1_numbers)\Rightarrow((k10_finseq_1 \\ X1\ X2 \in k1_relset_1\ (k1_euclid\ np_2)\ X0)\Rightarrow(k7_partfun1\ (k1_euclid \\ np_1)\ (k3_pdiff_1\ np_2\ X0)\ (k10_finseq_1\ X1\ X2) = k12_finseq_1 \\ k1_numbers\ (k7_partfun1\ k1_numbers\ X0\ (k10_finseq_1\ X1\ X2)))))) \end{aligned}$$