

l25_cfdiff_2

(TMNL9tkdsfLkxVpH4eTKoxeLA5nazuBend9)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_real_ns1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k18_complex1 : \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_normsp_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $k1_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_funct_1 : \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k7_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & (\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
 & (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow ((X0 \in k2_finseq_1 X1) \Rightarrow \\
 & ((k1_relset_1 (k1_euclid X1) (k1_pdiff_1 X0 X1) = k1_euclid X1) \wedge \\
 & (k1_rvsum_1 (k1_pdiff_1 X0 X1) = k1_numbers)))) \wedge (\forall X0. \\
 & (m1_subset_1 X0 k1_numbers) \Rightarrow ((k1_seq_1 (k1_pdiff_1 np_1 np_1) \\
 & (k12_finseq_1 k1_numbers X0) = X0) \wedge (k1_funct_1 (k2_funct_1 (k1_pdiff_1 \\
 & np_1 np_1)) X0 = k12_finseq_1 k1_numbers X0)))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\
 & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers))
 \end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (u1_struct_0 (k4_real_ns1 np_1))) \Rightarrow ((X1 = k12_finseq_1 k1_numbers \\ & X0) \Rightarrow (k1_normsp_0 (k4_real_ns1 np_1) X1 = k18_complex1 X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((m1_subset_1 X0 k5_numbers) \wedge \\ & ((m1_subset_1 X1 k5_numbers) \wedge (m1_subset_1 X2 (u1_struct_0 (k4_real_ns1 \\ & X0)))) \Rightarrow ((v1_funct_1 (k7_pdiff_1 X0 X1 X2)) \wedge ((v1_funct_2 (k7_pdiff_1 \\ & X0 X1 X2) (u1_struct_0 (k4_real_ns1 np_1)) (u1_struct_0 (k4_real_ns1 \\ & X0))) \wedge (m1_subset_1 (k7_pdiff_1 X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 (k4_real_ns1 np_1)) (u1_struct_0 (k4_real_ns1 \\ & X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (u1_struct_0 (k4_real_ns1 X0))) \Rightarrow (\forall X3.((v1_funct_1 \\ & X3) \wedge ((v1_funct_2 X3 (u1_struct_0 (k4_real_ns1 np_1)) (u1_struct_0 \\ & (k4_real_ns1 X0))) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (u1_struct_0 (k4_real_ns1 np_1)) (u1_struct_0 (k4_real_ns1 \\ & X0)))))) \Rightarrow ((X3 = k7_pdiff_1 X0 X1 X2) \Leftrightarrow (\forall X4.(m1_subset_1 \\ & X4 (u1_struct_0 (k4_real_ns1 np_1))) \Rightarrow (\exists X5.(m1_subset_1 \\ & X5 k1_numbers) \wedge (\exists X6.(m2_finseq_2 X6 k1_numbers (k1_euclid \\ & X0)) \wedge ((X4 = k12_finseq_1 k1_numbers X5) \wedge ((X6 = X2) \wedge (k3_funct_2 \\ & (u1_struct_0 (k4_real_ns1 np_1)) (u1_struct_0 (k4_real_ns1 \\ & X0)) X3 X4 = k3_funct_2 k1_numbers (k1_euclid X0) (k6_pdiff_1 X0 \\ & X1 X6) X5)))))))) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (u1_struct_0 (k4_real_ns1 np_1))) \Rightarrow \\ & (k18_complex1 (k1_seq_1 (k1_pdiff_1 np_1 np_1) X0) = k1_normsp_0 \\ & (k4_real_ns1 np_1) X0) \end{aligned}$$