

t35_pdiff_7

(TMTG8seyCmSpg6jahAZ22nVSQQkfVgUzZ2M)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_real_ns1 : \iota \Rightarrow \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r3_pdiff_7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_nfcont_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 k5_numbers)) \Rightarrow \\
 & (\forall X1.((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 k5_numbers)) \Rightarrow \\
 & (\forall X2.((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
 & (k1_euclid X0) (k1_euclid X1)))))) \Rightarrow (\forall X3.(m2_finseq_2 X3 \\
 & k1_numbers (k1_euclid X0)) \Rightarrow ((r3_pdiff_7 X0 X1 X2 X3) \Leftrightarrow (\exists X4. \\
 & (m1_subset_1 X4 (u1_struct_0 (k4_real_ns1 X0)))) \wedge (\exists X5. \\
 & ((v1_funct_1 X5) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 (\\
 & u1_struct_0 (k4_real_ns1 X0)) (u1_struct_0 (k4_real_ns1 X1)))))) \wedge \\
 & ((X3 = X4) \wedge ((X2 = X5) \wedge (r1_nfcont_1 (k4_real_ns1 X0) (k4_real_ns1 \\
 & X1) X5 X4)))))))))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
 & \forall X0.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 k5_numbers)) \Rightarrow \\
 & (\forall X1.((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 k5_numbers)) \Rightarrow \\
 & (\forall X2.((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\
 & (k1_euclid X0) (k1_euclid X1)))))) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge \\
 & (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 (k4_real_ns1 \\
 & X0)) (u1_struct_0 (k4_real_ns1 X1)))))) \Rightarrow (\forall X4.(m2_finseq_2 \\
 & X4 k1_numbers (k1_euclid X0)) \Rightarrow (\forall X5.(m1_subset_1 X5 (u1_struct_0 \\
 & (k4_real_ns1 X0)) \Rightarrow (((X2 = X3) \wedge (X4 = X5)) \Rightarrow ((r3_pdiff_7 X0 X1 X2 \\
 & X4) \Leftrightarrow (r1_nfcont_1 (k4_real_ns1 X0) (k4_real_ns1 X1) X3 X5)))))))))
 \end{aligned}$$