

t20_pdiff_7

(TMa6yydMuox7GDVeFKHzCv92P8fJEymmUFy)

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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_real_ns1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_pdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
 & X1 k5_numbers) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k4_real_ns1 \\
 & X0))) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 (k4_real_ns1 \\
 & np_1))) \Rightarrow ((k5_algstr_0 (k4_real_ns1 X0) (k3_funct_2 (u1_struct_0 \\
 & (k4_real_ns1 np_1)) (u1_struct_0 (k4_real_ns1 X0)) (k7_pdiff_1 \\
 & X0 X1 X2) X3) X2 = k3_funct_2 (u1_struct_0 (k4_real_ns1 np_1)) (\\
 & u1_struct_0 (k4_real_ns1 X0)) (k7_pdiff_1 X0 X1 (k4_struct_0 (\\
 & k4_real_ns1 X0))) (k5_algstr_0 (k4_real_ns1 np_1) X3 (k3_funct_2 \\
 & (u1_struct_0 (k4_real_ns1 X0)) (u1_struct_0 (k4_real_ns1 np_1)) \\
 & (k4_pdiff_1 X1 X0) X2))) \wedge (k5_algstr_0 (k4_real_ns1 X0) X2 (k3_funct_2 \\
 & (u1_struct_0 (k4_real_ns1 np_1)) (u1_struct_0 (k4_real_ns1 \\
 & X0)) (k7_pdiff_1 X0 X1 X2) X3) = k3_funct_2 (u1_struct_0 (k4_real_ns1 \\
 & np_1)) (u1_struct_0 (k4_real_ns1 X0)) (k7_pdiff_1 X0 X1 (k4_struct_0 \\
 & (k4_real_ns1 X0))) (k5_algstr_0 (k4_real_ns1 np_1) (k3_funct_2 \\
 & (u1_struct_0 (k4_real_ns1 X0)) (u1_struct_0 (k4_real_ns1 np_1)) \\
 & (k4_pdiff_1 X1 X0) X2) X3))))))
 \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 k5_numbers)) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 (k4_real_ns1 np_1))) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 (k4_real_ns1 np_1))) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 k5_numbers) \Rightarrow (\forall X4.(m1_subset_1 \\ & X4 (u1_struct_0 (k4_real_ns1 X0))) \Rightarrow (((r1_xxreal_0 np_1 X3) \wedge \\ & ((r1_xxreal_0 X3 X0) \wedge (X2 = k3_funct_2 (u1_struct_0 (k4_real_ns1 \\ & X0)) (u1_struct_0 (k4_real_ns1 np_1)) (k4_pdiff_1 X3 X0) X4))) \Rightarrow \\ & ((k5_algstr_0 (k4_real_ns1 X0) (k3_funct_2 (u1_struct_0 (k4_real_ns1 \\ & np_1)) (u1_struct_0 (k4_real_ns1 X0)) (k7_pdiff_1 X0 X3 X4) X1) \\ & X4 = k3_funct_2 (u1_struct_0 (k4_real_ns1 np_1)) (u1_struct_0 \\ & (k4_real_ns1 X0)) (k7_pdiff_1 X0 X3 (k4_struct_0 (k4_real_ns1 \\ & X0))) (k5_algstr_0 (k4_real_ns1 np_1) X1 X2)) \wedge (k5_algstr_0 (\\ & k4_real_ns1 X0) X4 (k3_funct_2 (u1_struct_0 (k4_real_ns1 np_1)) \\ & (u1_struct_0 (k4_real_ns1 X0)) (k7_pdiff_1 X0 X3 X4) X1) = k3_funct_2 \\ & (u1_struct_0 (k4_real_ns1 np_1)) (u1_struct_0 (k4_real_ns1 \\ & X0)) (k7_pdiff_1 X0 X3 (k4_struct_0 (k4_real_ns1 X0))) (k5_algstr_0 \\ & (k4_real_ns1 np_1) X2 X1)))))))))) \end{aligned}$$