

t3_fdifff_6

(TMNuvyE2s6LrxRmcXxuatxE7nmS5nuDasNF)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $v3_rcomp_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k47_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_square_1 : \iota \Rightarrow \iota$ be given. Let $k1_taylor_1 : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $r2_fdiff_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_fdiff_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_real_1 : \iota \Rightarrow \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.((v3_rcomp_1 \\
 & \quad X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 k1_numbers))) \Rightarrow (\forall X2. \\
 & ((v1_funct_1 X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers \\
 & \quad k1_numbers)))) \Rightarrow (\forall X3.((v1_funct_1 X3) \wedge (m1_subset_1 X3 \\
 & \quad (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers k1_numbers)))) \Rightarrow (((r1_tarski \\
 & \quad X1 (k9_xtuple_0 (k47_valued_1 k1_numbers k1_numbers k1_numbers \\
 & \quad X2 X3))) \wedge ((\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow ((X4 \in X1) \Rightarrow \\
 & \quad (k1_seq_1 X2 X4 = X0))) \wedge (X3 = k1_taylor_1 np_2))) \Rightarrow ((r2_fdiff_1 \\
 & \quad (k47_valued_1 k1_numbers k1_numbers k1_numbers X2 X3) X1) \wedge (\forall X4. \\
 & \quad (m1_subset_1 X4 k1_numbers) \Rightarrow ((X4 \in X1) \Rightarrow (k1_seq_1 (k2_fdiff_1 \\
 & \quad (k47_valued_1 k1_numbers k1_numbers k1_numbers X2 X3) X1) X4 = k1_real_1 \\
 & \quad (k8_real_1 np_2 X4)))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$v3_membered k1_numbers \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_valued_0 X0))) \Rightarrow (m1_subset_1 (k1_seq_1 X0 X1) k1_numbers) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(v3_membered\ X1)\Rightarrow(\forall X2.(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X1)))\Rightarrow(v3_valued_0\ X2)) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(\forall X1.((v3_rcomp_1\ X1)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ k1_numbers)))\Rightarrow(\forall X2. \\ & ((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers))))\Rightarrow(\forall X3.((v1_funct_1\ X3)\wedge(m1_subset_1\ X3 \\ & (k1_zfmisc_1\ (k2_zfmisc_1\ k1_numbers\ k1_numbers))))\Rightarrow(((r1_tarski\ X1\ (k9_xtuple_0\ (k47_valued_1\ k1_numbers\ k1_numbers\ k1_numbers \\ & X2\ X3)))\wedge((\forall X4.(m1_subset_1\ X4\ k1_numbers)\Rightarrow((X4\in X1)\Rightarrow \\ & (k1_seq_1\ X2\ X4 = k5_square_1\ X0)))\wedge(X3 = k1_taylor_1\ np_2)))\Rightarrow \\ & ((r2_fdiff_1\ (k47_valued_1\ k1_numbers\ k1_numbers\ k1_numbers\ X2\ X3)\ X1)\wedge(\forall X4.(m1_subset_1\ X4\ k1_numbers)\Rightarrow((X4\in X1)\Rightarrow \\ & (k1_seq_1\ (k2_fdiff_1\ (k47_valued_1\ k1_numbers\ k1_numbers\ k1_numbers\ X2\ X3)\ X1)\ X4 = k1_real_1\ (k8_real_1\ np_2\ X4)))))))))) \end{aligned}$$