

t56_rewrite3

(TMGuCb4mCYmTpmbJRKpR3iT6rVSLycFCoMi)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_rewrite3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_rewrite1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_rewrite3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\
 & \quad (k8_afinsq_1 X0))) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge (l1_rewrite3 \\
 & \quad X2 X1)) \Rightarrow (\forall X3. (m1_rewrite1 X3 (k1_rewrite3 X0 X1 X2)) \Rightarrow (\forall X4. \\
 & \quad (v7_ordinal1 X4) \Rightarrow (\neg (X4 \in k4_finseq_1 X3) \wedge ((k2_xcmplx_0 X4 np_1 \in \\
 & \quad k4_finseq_1 X3) \wedge (\forall X5. (m1_subset_1 X5 (k8_afinsq_1 X0)) \Rightarrow \\
 & \quad (\forall X6. (m1_subset_1 X6 (k8_afinsq_1 X0)) \Rightarrow (\neg (X5 = k2_xtuple_0 \\
 & \quad (k1_funct_1 X3 (k2_xcmplx_0 X4 np_1)))) \wedge ((r1_rewrite3 X1 X2 (k1_xtuple_0 \\
 & \quad (k1_funct_1 X3 X4)) X6 (k1_xtuple_0 (k1_funct_1 X3 (k2_xcmplx_0 \\
 & \quad X4 np_1)))) \wedge (k2_xtuple_0 (k1_funct_1 X3 X4) = k1_flang_1 X0 X6 \\
 & \quad X5))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. k2_xtuple_0 (k4_tarski X0 X1) = X1 \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. k1_xtuple_0 (k4_tarski X0 X1) = X0 \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(\neg v1_xboole_0 X2)\Rightarrow(\forall X3. \\ & (m1_subset_1 X3 (k8_afinsq_1 X2))\Rightarrow(\forall X4.(m1_subset_1 X4 \\ & (k8_afinsq_1 X2))\Rightarrow(\forall X5.(m1_subset_1 X5 (k1_zfmisc_1 (\\ & k8_afinsq_1 X2)))\Rightarrow(\forall X6.((\neg v2_struct_0 X6)\wedge(l1_rewrite3 \\ & X6 X5))\Rightarrow(\forall X7.(m1_rewrite1 X7 (k1_rewrite3 X2 X5 X6))\Rightarrow(\forall X8. \\ & (v7_ordinal1 X8)\Rightarrow(\neg(X8 \in k4_finseq_1 X7)\wedge((k2_xcmplx_0 X8 np_1 \in \\ & k4_finseq_1 X7)\wedge((k1_funct_1 X7 X8 = k4_tarski X0 X3)\wedge((k1_funct_1 \\ & X7 (k2_xcmplx_0 X8 np_1) = k4_tarski X1 X4)\wedge(\forall X9.(m1_subset_1 \\ & X9 (k8_afinsq_1 X2))\Rightarrow(\neg(r1_rewrite3 X5 X6 X0 X9 X1)\wedge(X3 = k1_flang_1 \\ & X2 X9 X4)))))))))))))) \end{aligned}$$