

t92_gfacirc1

(TMM4wGkQCR13DwtrPXtxL7snFgQNMKt1hRg)

October 27, 2020

Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_gfacirc1 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $u3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k34_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k35_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_margrel1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_twoscomp : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_circuit2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k36_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_binarith : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_margrel1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 (k4_finseq_2 np_2 \\
 & k6_margrel1) k6_margrel1) \wedge (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 \\
 & (k4_finseq_2 np_2 k6_margrel1) k6_margrel1)))))) \Rightarrow (\forall X1. \\
 & \forall X2. \forall X3. (X3 \neq k4_tarski (k10_finseq_1 X1 X2) X0) \Rightarrow \\
 & (\forall X4. (m1_subset_1 X4 (k4_card_3 (u3_msualg_1 (k8_facirc_1 \\
 & X1 X2 X3 X0) (k10_facirc_1 X1 X2 X3 X0)))))) \Rightarrow ((k1_twoscomp (k8_facirc_1 \\
 & X1 X2 X3 X0) (k10_facirc_1 X1 X2 X3 X0) (k6_circuit2 (k8_facirc_1 \\
 & X1 X2 X3 X0) (k10_facirc_1 X1 X2 X3 X0) X4) (k9_facirc_1 X1 X2 X3 X0) = \\
 & k1_funct_1 X0 (k10_finseq_1 (k1_funct_1 X4 (k4_tarski (k10_finseq_1 \\
 & X1 X2) X0)) (k1_funct_1 X4 X3))) \wedge ((k1_funct_1 (k6_circuit2 (k8_facirc_1 \\
 & X1 X2 X3 X0) (k10_facirc_1 X1 X2 X3 X0) X4) (k4_tarski (k10_finseq_1 \\
 & X1 X2) X0) = k1_funct_1 X0 (k10_finseq_1 (k1_funct_1 X4 X1) (k1_funct_1 \\
 & X4 X2))) \wedge ((k1_funct_1 (k6_circuit2 (k8_facirc_1 X1 X2 X3 X0) (k10_facirc_1 \\
 & X1 X2 X3 X0) X4) X1 = k1_funct_1 X4 X1) \wedge ((k1_funct_1 (k6_circuit2 \\
 & (k8_facirc_1 X1 X2 X3 X0) (k10_facirc_1 X1 X2 X3 X0) X4) X2 = k1_funct_1 \\
 & X4 X2) \wedge (k1_funct_1 (k6_circuit2 (k8_facirc_1 X1 X2 X3 X0) (k10_facirc_1 \\
 & X1 X2 X3 X0) X4) X3 = k1_funct_1 X4 X3))))))
 \end{aligned}
 \tag{1}$$

Assume the following.

$$(v1_funct_1\ k4_gfacirc1)\wedge((v1_funct_2\ k4_gfacirc1\ (k4_finseq_2\ np_2\ k6_margrel1)\ k6_margrel1)\wedge(m1_subset_1\ k4_gfacirc1\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k4_finseq_2\ np_2\ k6_margrel1)\ k6_margrel1)))) \quad (2)$$

Assume the following.

$$\forall X0.((v1_funct_1\ X0)\wedge((v1_funct_2\ X0\ (k4_finseq_2\ np_2\ k6_margrel1)\ k6_margrel1)\wedge(m1_subset_1\ X0\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k4_finseq_2\ np_2\ k6_margrel1)\ k6_margrel1))))))\Rightarrow((X0 = k4_gfacirc1)\Leftrightarrow (\forall X1.(m1_subset_1\ X1\ k6_margrel1)\Rightarrow(\forall X2.(m1_subset_1\ X2\ k6_margrel1)\Rightarrow(k1_funct_1\ X0\ (k10_finseq_1\ X1\ X2) = k2_binarith\ X1\ (k9_margrel1\ X2)))))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k36_gfacirc1\ X0\ X1\ X2 = k9_facirc1\ X0\ X1\ X2\ k4_gfacirc1 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k35_gfacirc1\ X0\ X1\ X2 = k10_facirc1\ X0\ X1\ X2\ k4_gfacirc1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k34_gfacirc1\ X0\ X1\ X2 = k8_facirc1\ X0\ X1\ X2\ k4_gfacirc1 \quad (6)$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(X2\neq k4_tarski\ (k10_finseq_1\ X0\ X1)\ k4_gfacirc1)\Rightarrow(\forall X3.(m1_subset_1\ X3\ (k4_card_3\ (u3_msualg_1\ (k34_gfacirc1\ X0\ X1\ X2)\ (k35_gfacirc1\ X0\ X1\ X2))))\Rightarrow(\forall X4.(m1_subset_1\ X4\ k6_margrel1)\Rightarrow(\forall X5.(m1_subset_1\ X5\ k6_margrel1)\Rightarrow(\forall X6.(m1_subset_1\ X6\ k6_margrel1)\Rightarrow(\forall X7.(m1_subset_1\ X7\ k6_margrel1)\Rightarrow(((X4 = k1_funct_1\ X3\ (k4_tarski\ (k10_finseq_1\ X0\ X1)\ k4_gfacirc1))\wedge((X5 = k1_funct_1\ X3\ X0)\wedge((X6 = k1_funct_1\ X3\ X1)\wedge(X7 = k1_funct_1\ X3\ X2))))\Rightarrow(k1_twoscomp\ (k34_gfacirc1\ X0\ X1\ X2)\ (k35_gfacirc1\ X0\ X1\ X2)\ (k6_circuit2\ (k34_gfacirc1\ X0\ X1\ X2)\ (k35_gfacirc1\ X0\ X1\ X2)\ X3)\ (k36_gfacirc1\ X0\ X1\ X2) = k2_binarith\ X4\ (k9_margrel1\ X7))))))))))$$