

t123_gfacirc1

(TMRJzyszkowdU1uvs34ZXHVLDihNymRkD4j)

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Let $k4_tarSKI : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_twoscomp : \iota$ 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 $k46_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k47_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_margrel1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_circuit2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_binarith : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (X2 \neq k4_tarSKI (k10_finseq_1 \\
& X0 X1) k14_twoscomp) \Rightarrow (\forall X3. (m1_subset_1 X3 (k4_card_3 (\\
& u3_msualg_1 (k10_gfacirc1 X0 X1 X2) (k11_gfacirc1 X0 X1 X2)))) \Rightarrow \\
& (\forall X4. (m1_subset_1 X4 k6_margrel1) \Rightarrow (\forall X5. (m1_subset_1 \\
& X5 k6_margrel1) \Rightarrow (\forall X6. (m1_subset_1 X6 k6_margrel1) \Rightarrow ((\\
& (X4 = k1_funct_1 X3 X0) \wedge ((X5 = k1_funct_1 X3 X1) \wedge (X6 = k1_funct_1 \\
& X3 X2))) \Rightarrow ((k1_funct_1 (k6_circuit2 (k10_gfacirc1 X0 X1 X2) (k11_gfacirc1 \\
& X0 X1 X2) X3) (k4_tarSKI (k10_finseq_1 X0 X1) k14_twoscomp) = k2_binarith \\
& X4 X5) \wedge ((k1_funct_1 (k6_circuit2 (k10_gfacirc1 X0 X1 X2) (k11_gfacirc1 \\
& X0 X1 X2) X3) X0 = X4) \wedge ((k1_funct_1 (k6_circuit2 (k10_gfacirc1 X0 \\
& X1 X2) (k11_gfacirc1 X0 X1 X2) X3) X1 = X5) \wedge (k1_funct_1 (k6_circuit2 \\
& (k10_gfacirc1 X0 X1 X2) (k11_gfacirc1 X0 X1 X2) X3) X2 = X6))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k47_gfacirc1 X0 X1 X2 = k10_facirc_1 X0 X1 X2 k14_twoscomp \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k46_gfacirc1 X0 X1 X2 = k8_facirc_1 X0 X1 X2 k14_twoscomp \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k11_gfacirc1 X0 X1 X2 = k10_facirc_1 X0 X1 X2 k14_twoscomp \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k10_gfacirc1 X0 X1 X2 = k8_facirc1 X0 X1 X2 k14_twoscomp \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(X2 \neq k4_tarski (k10_finseq_1 \\ & X0 X1) k14_twoscomp) \Rightarrow (\forall X3.(m1_subset_1 X3 (k4_card_3 (\\ & u3_msualg_1 (k46_gfacirc1 X0 X1 X2) (k47_gfacirc1 X0 X1 X2)))) \Rightarrow \\ & (\forall X4.(m1_subset_1 X4 k6_margrel1) \Rightarrow (\forall X5.(m1_subset_1 \\ & X5 k6_margrel1) \Rightarrow (\forall X6.(m1_subset_1 X6 k6_margrel1) \Rightarrow ((\\ & (X4 = k1_funct_1 X3 X0) \wedge ((X5 = k1_funct_1 X3 X1) \wedge (X6 = k1_funct_1 \\ & X3 X2))) \Rightarrow ((k1_funct_1 (k6_circuit2 (k46_gfacirc1 X0 X1 X2) (k47_gfacirc1 \\ & X0 X1 X2) X3) (k4_tarski (k10_finseq_1 X0 X1) k14_twoscomp) = k2_binarith \\ & X4 X5) \wedge ((k1_funct_1 (k6_circuit2 (k46_gfacirc1 X0 X1 X2) (k47_gfacirc1 \\ & X0 X1 X2) X3) X0 = X4) \wedge ((k1_funct_1 (k6_circuit2 (k46_gfacirc1 X0 \\ & X1 X2) (k47_gfacirc1 X0 X1 X2) X3) X1 = X5) \wedge (k1_funct_1 (k6_circuit2 \\ & (k46_gfacirc1 X0 X1 X2) (k47_gfacirc1 X0 X1 X2) X3) X2 = X6)))))))))) \end{aligned}$$