

t7_gfacirc1

(TMUyRxX.Jbyb2wyPpsaESysuYLUpTKWeNd6g)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_margrel1 : \iota$ be given. Let $k2_binarith : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_margrel1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k14_twoscomp : \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_twoscomp : \iota$ be given. Let $k16_twoscomp : \iota$ be given. Let $k4_gfacirc1 : \iota$ be given. Let $k8_twoscomp : \iota$ be given. Let $k4_twoscomp : \iota$ be given. Let $k2_twoscomp : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k6_margrel1) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k6_margrel1) \Rightarrow ((k1_funct_1 k14_twoscomp (k10_finseq_1 X0 X1) = \\ k2_binarith X0 X1) \wedge ((k1_funct_1 k15_twoscomp (k10_finseq_1 X0 \\ X1) = k2_binarith (k9_margrel1 X0) X1) \wedge (k1_funct_1 k16_twoscomp \\ (k10_finseq_1 X0 X1) = k2_binarith (k9_margrel1 X0) (k9_margrel1 \\ X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k6_margrel1) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k6_margrel1) \Rightarrow ((k1_funct_1 k4_gfacirc1 (k10_finseq_1 X0 X1) = \\ k2_binarith X0 (k9_margrel1 X1)) \wedge ((k1_funct_1 k4_gfacirc1 (k10_finseq_1 \\ X0 X1) = k1_funct_1 k15_twoscomp (k10_finseq_1 X0 X1)) \wedge ((k1_funct_1 \\ k4_gfacirc1 (k10_finseq_1 X0 X1) = k1_funct_1 k8_twoscomp (k10_finseq_1 \\ (k1_funct_1 k4_twoscomp (k10_finseq_1 X0 X1)) (k1_funct_1 k2_twoscomp \\ (k10_finseq_1 X0 X1)))) \wedge ((k1_funct_1 k4_gfacirc1 (k10_finseq_1 \\ k6_numbers k6_numbers) = np_1) \wedge ((k1_funct_1 k4_gfacirc1 (k10_finseq_1 \\ k6_numbers np_1) = k6_numbers) \wedge ((k1_funct_1 k4_gfacirc1 (k10_finseq_1 \\ np_1 k6_numbers) = k6_numbers) \wedge (k1_funct_1 k4_gfacirc1 (k10_finseq_1 \\ np_1 np_1) = np_1)))))))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k6_margrel1) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k6_margrel1) \Rightarrow (\forall X2.(m1_subset_1 X2 k6_margrel1) \Rightarrow (k2_binarith \\ & (k2_binarith (k9_margrel1 X0) X1) (k9_margrel1 X2) = k2_binarith \\ & (k2_binarith X0 (k9_margrel1 X1)) (k9_margrel1 X2)))) \end{aligned}$$