

t55_facirc_1

(TMYa6eXct7mk1uuhUaBMkp7DYZ9a4xYSy)

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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 $np_3 : \iota$ be given. Let $k6_margrel1 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $u3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_circcomb : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_circuit2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_circuit2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k7_circcomb : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X3) \wedge \\ & (v1_finset_1 X3)) \Rightarrow (\forall X4. ((v1_funct_1 X4) \wedge ((v1_funct_2 \\ & X4 (k4_finseq_2 np_3 X3) X3) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k4_finseq_2 np_3 X3) X3)))))) \Rightarrow (\forall X5. (m1_subset_1 X5 (k4_card_3 \\ & (u3_msualg_1 (k5_circcomb X4 (k11_finseq_1 X0 X1 X2)) (k7_circcomb \\ & np_3 X3 X4 (k11_finseq_1 X0 X1 X2)))))) \Rightarrow (v1_circuit2 (k6_circuit2 \\ & (k5_circcomb X4 (k11_finseq_1 X0 X1 X2)) (k7_circcomb np_3 X3 X4 \\ & (k11_finseq_1 X0 X1 X2)) X5) (k5_circcomb X4 (k11_finseq_1 X0 X1 \\ & X2)) (k7_circcomb np_3 X3 X4 (k11_finseq_1 X0 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\neg v1_xboole_0 k6_margrel1 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. v1_finset_1 (k2_tarski X0 X1) \quad (3)$$

Assume the following.

$$k6_margrel1 = k2_tarski k6_numbers np_1 \quad (4)$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X3) \wedge \\
& ((v1_funct_2 X3 (k4_finseq_2 np_3 k6_margrel1) k6_margrel1) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k4_finseq_2 np_3 \\
& k6_margrel1) k6_margrel1)))) \Rightarrow (k7_facirc_1 X0 X1 X2 X3 = k7_circomb \\
& np_3 k6_margrel1 X3 (k11_finseq_1 X0 X1 X2))
\end{aligned} \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X3) \wedge \\
& ((v1_funct_2 X3 (k4_finseq_2 np_3 k6_margrel1) k6_margrel1) \wedge \\
& (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 (k4_finseq_2 np_3 \\
& k6_margrel1) k6_margrel1)))) \Rightarrow (\forall X4. (m1_subset_1 X4 (\\
& k4_card_3 (u3_msualg_1 (k5_circomb X3 (k11_finseq_1 X0 X1 X2)) \\
& (k7_facirc_1 X0 X1 X2 X3)))) \Rightarrow (v1_circuit2 (k6_circuit2 (k5_circomb \\
& X3 (k11_finseq_1 X0 X1 X2)) (k7_facirc_1 X0 X1 X2 X3) X4) (k5_circomb \\
& X3 (k11_finseq_1 X0 X1 X2)) (k7_facirc_1 X0 X1 X2 X3)))
\end{aligned}$$