

t18_circcmb3

(TMJps7RbpVGfUHwrSNWFmw6YtCA8i3s1ALR)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ 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 $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k4_card_3 : \iota \Rightarrow \iota$ be given. Let $u3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_circcomb : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_circcomb : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k3_circcmb3 : \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_circcmb3 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $v1_msualg_1 : \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ & (v1_finset_1 X1)) \Rightarrow (\forall X2.((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 (k4_finseq_2 X0 X1) X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k4_finseq_2 X0 X1) X1)))) \Rightarrow (\forall X3.((v1_relat_1 X3) \wedge ((v1_funct_1 \\ & X3) \wedge ((v3_card_1 X3 X0) \wedge (v1_finseq_1 X3)))) \Rightarrow (\forall X4.(m1_subset_1 \\ & X4 (k4_card_3 (u3_msualg_1 (k5_circcomb X2 X3) (k7_circcomb X0 \\ & X1 X2 X3)))) \Rightarrow (k1_funct_1 (k6_circuit2 (k5_circcomb X2 X3) (k7_circcomb \\ & X0 X1 X2 X3) X4) (k4_tarski X3 X2) = k1_funct_1 X2 (k3_relat_1 X3 X4)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v4_circcmb3 X0) \wedge (l1_msualg_1 X0)) \Rightarrow (\forall X1. \\ & ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (\forall X2. \\ & (X0 = k5_circcomb X2 X1) \Rightarrow (k3_circcmb3 X0 = k4_tarski X1 X2))) \end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1_xboole_0 \\ & X0)\wedge(v1_finset_1 X0))\wedge((m1_subset_1 X1 k5_numbers)\wedge(((v1_relat_1 \\ & X2)\wedge(v1_funct_1 X2)\wedge((v3_card_1 X2 X1)\wedge(v1_finseq_1 X2))))\wedge \\ & ((v1_funct_1 X3)\wedge((v1_funct_2 X3 (k4_finseq_2 X1 X0) X0)\wedge(m1_subset_1 \\ & X3 (k1_zfmisc_1 (k2_zfmisc_1 (k4_finseq_2 X1 X0) X0))))))\Rightarrow(\\ & (\neg v11_struct_0 (k5_circcomb X3 X2))\wedge((v1_msualg_1 (k5_circcomb \\ & X3 X2))\wedge(v4_circcomb3 (k5_circcomb X3 X2)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 \\ & X1)))\Rightarrow((\neg v11_struct_0 (k5_circcomb X0 X1))\wedge((v1_msualg_1 (k5_circcomb \\ & X0 X1))\wedge(l1_msualg_1 (k5_circcomb X0 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarski X0 X1 = k2_tarski (k2_tarski X0 X1) (k1_tarski X0) \quad (6)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers)\Rightarrow(\forall X1.(((\neg v1_xboole_0 \\ & X1)\wedge(v1_finset_1 X1))\Rightarrow(\forall X2.(((v1_funct_1 X2)\wedge((v1_funct_2 \\ & X2 (k4_finseq_2 X0 X1) X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & (k4_finseq_2 X0 X1) X1))))\Rightarrow(\forall X3.(((v1_relat_1 X3)\wedge((v1_funct_1 \\ & X3)\wedge((v3_card_1 X3 X0)\wedge(v1_finseq_1 X3))))\Rightarrow(\forall X4.(m1_subset_1 \\ & X4 (k4_card_3 (u3_msualg_1 (k5_circcomb X2 X3) (k7_circcomb X0 \\ & X1 X2 X3))))\Rightarrow(k1_funct_1 (k6_circuit2 (k5_circcomb X2 X3) (k7_circcomb \\ & X0 X1 X2 X3) X4) (k3_circcomb3 (k5_circcomb X2 X3)) = k1_funct_1 X2 \\ & (k3_relat_1 X3 X4)))))) \end{aligned}$$