

t4_circcmb2

(TMW1thciZQPo19CNhVC4mPyzaBpcSq9w8Ub)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $v2_msafree2 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $v4_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_msafree2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l3_msualg_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_circuit2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v2_msafree2 \\ X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1.((v4_msualg_1 X1 X0) \wedge ((\\ v4_msafree2 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow (\forall X2.(m1_subset_1 \\ X2 (k4_card_3 (u3_msualg_1 X0 X1))) \Rightarrow ((v1_circuit2 X2 X0 X1) \Rightarrow (\forall X3. \\ (v7_ordinal1 X3) \Rightarrow (k5_facirc_1 X0 X1 X2 X3 = X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v2_msafree2 \\ X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1.((v4_msualg_1 X1 X0) \wedge ((\\ v4_msafree2 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow (\forall X2.(m1_subset_1 \\ X2 (k4_card_3 (u3_msualg_1 X0 X1))) \Rightarrow (\forall X3.(v7_ordinal1 \\ X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow (k5_facirc_1 X0 X1 X2 (k2_xcmplx_0 \\ X3 X4) = k5_facirc_1 X0 X1 (k5_facirc_1 X0 X1 X2 X3) X4)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\neg \\ (r1_xxreal_0 X0 X1) \wedge (\forall X2.(v7_ordinal1 X2) \Rightarrow (X1 \neq k2_xcmplx_0 \\ X0 X2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v2_struct_0 \\
& X0)\wedge((\neg v11_struct_0 X0)\wedge((v2_msafree2 X0)\wedge(l1_msualg_1 X0))))\wedge \\
& (((v4_msualg_1 X1 X0)\wedge((v4_msafree2 X1 X0)\wedge(l3_msualg_1 X1 X0))))\wedge \\
& ((m1_subset_1 X2 (k4_card_3 (u3_msualg_1 X0 X1)))\wedge(v7_ordinal1 \\
& X3))))\Rightarrow(m1_subset_1 (k5_facirc_1 X0 X1 X2 X3) (k4_card_3 (u3_msualg_1 \\
& X0 X1)))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0)\wedge((\neg v11_struct_0 X0)\wedge((v2_msafree2 \\
& X0)\wedge(l1_msualg_1 X0))))\Rightarrow(\forall X1.((v4_msualg_1 X1 X0)\wedge((\\
& v4_msafree2 X1 X0)\wedge(l3_msualg_1 X1 X0)))\Rightarrow(\forall X2.(m1_subset_1 \\
& X2 (k4_card_3 (u3_msualg_1 X0 X1)))\Rightarrow(\forall X3.(v7_ordinal1 \\
& X3)\Rightarrow(\forall X4.(v7_ordinal1 X4)\Rightarrow(((v1_circuit2 (k5_facirc_1 \\
& X0 X1 X2 X3) X0 X1)\wedge(r1_xxreal_0 X3 X4))\Rightarrow(k5_facirc_1 X0 X1 X2 X4 = \\
& k5_facirc_1 X0 X1 X2 X3))))))
\end{aligned}$$