

t15_facirc_1
(TMPD2KJkmVE87dJqwz7D2nTujvXCWBbwLgj)

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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 $k5_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k6_circuit2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v2_msafree2 \\ X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1. ((v4_msualg_1 X1 X0) \wedge ((\\ v4_msafree2 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow (\forall X2. (m1_subset_1 \\ X2 (k4_card_3 (u3_msualg_1 X0 X1))) \Rightarrow (k5_facirc_1 X0 X1 X2 np_1 = \\ k6_circuit2 X0 X1 X2))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v2_msafree2 \\ X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1. ((v4_msualg_1 X1 X0) \wedge ((\\ v4_msafree2 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow (\forall X2. (m1_subset_1 \\ X2 (k4_card_3 (u3_msualg_1 X0 X1))) \Rightarrow (\forall X3. (v7_ordinal1 \\ X3) \Rightarrow (k5_facirc_1 X0 X1 X2 (k1_nat_1 X3 np_1) = k6_circuit2 X0 X1 \\ (k5_facirc_1 X0 X1 X2 X3)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \tag{3}$$

Assume the following.

$$k2_xcmplx_0 np_1 np_1 = np_2 \tag{4}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0)\wedge(m1_subset_1 X1 k5_numbers))\Rightarrow (k1_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (6)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((\neg v11_struct_0 X0)\wedge((v2_msafree2 \\ X0)\wedge(l1_msualg_1 X0))))\Rightarrow(\forall X1.((v4_msualg_1 X1 X0)\wedge((\\ v4_msafree2 X1 X0)\wedge(l3_msualg_1 X1 X0)))\Rightarrow(\forall X2.(m1_subset_1 \\ X2 (k4_card_3 (u3_msualg_1 X0 X1)))\Rightarrow(k5_facirc_1 X0 X1 X2 np_2 = \\ k6_circuit2 X0 X1 (k6_circuit2 X0 X1 X2)))) \end{aligned}$$