

t1_circcmb3 (TMapXmBXwk- BZXJ57f7Nf7gXCH8YuJvoKuhD)

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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 $k2_msafree2 : \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_facirc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v2_msafree2 \\ X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1.((v4_msualg_1 X1 X0) \wedge ((\\ v4_msafree2 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow (\forall X2.(m1_subset_1 \\ X2 (k4_card_3 (u3_msualg_1 X0 X1))) \Rightarrow (\forall X3.(X3 \in k2_msafree2 \\ X0) \Rightarrow (r1_facirc_1 X0 X1 X2 X3)))) \end{aligned} \quad (1)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v2_msafree2 \\ X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1.((v4_msualg_1 X1 X0) \wedge ((\\ v4_msafree2 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow (\forall X2.(m1_subset_1 \\ X2 (k4_card_3 (u3_msualg_1 X0 X1))) \Rightarrow (\forall X3.(r1_facirc_1 \\ X0 X1 X2 X3) \Leftrightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow (k1_funct_1 (k5_facirc_1 \\ X0 X1 X2 X4) X3 = k1_funct_1 X2 X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge ((v2_msafree2 \\ X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1.((v4_msualg_1 X1 X0) \wedge ((\\ v4_msafree2 X1 X0) \wedge (l3_msualg_1 X1 X0))) \Rightarrow (\forall X2.(m1_subset_1 \\ X2 (k4_card_3 (u3_msualg_1 X0 X1))) \Rightarrow (\forall X3.(X3 \in k2_msafree2 \\ X0) \Rightarrow (\forall X4.(m1_subset_1 X4 k5_numbers) \Rightarrow (k1_funct_1 (k5_facirc_1 \\ X0 X1 X2 X4) X3 = k1_funct_1 X2 X3)))))) \end{aligned}$$