

t41_circcomb
(TMaGX3YFW8mSXHEqACfoV7N7tVlk2v5q4Kyp)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_circcomb : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_circcomb : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (k5_circcomb X0 X1 = k4_circcomb X0 X1 (k4_tarski X1 X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge (v1_finseq_1 X2))) \Rightarrow (\forall X3. (m1_subset_1 X3 (u4_struct_0 (k4_circcomb X0 X2 X1))) \Rightarrow ((X3 = k4_tarski X2 X0) \wedge ((k1_msualg_1 (k4_circcomb X0 X2 X1) X3 = X2) \wedge (k2_msualg_1 (k4_circcomb X0 X2 X1) X3 = X1)))) \quad (2)$$

Theorem 1

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u4_struct_0 (k5_circcomb X0 X1))) \Rightarrow ((X2 = k4_tarski X1 X0) \wedge ((k1_msualg_1 (k5_circcomb X0 X1) X2 = X1) \wedge (k2_msualg_1 (k5_circcomb X0 X1) X2 = X2))))$$