

t5_cayley

(TMaqwfcJybk1WVoRjXEUQAVX5wPJbXCzUT8)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_cayley : \iota \Rightarrow \iota$ 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 $v3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_cayley : \iota \Rightarrow \iota$ be given. Let $v4_funct_1 : \iota \Rightarrow o$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_monoid_0 : \iota \Rightarrow o$ be given. Let $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (X1 \in k1_cayley X0) \Rightarrow ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 X0 X0) \wedge ((v3_funct_2 X1 X0 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))))) \quad (2)$$

Assume the following.

$$\forall X0. (\neg v1_xboole_0 (k1_cayley X0)) \wedge (v4_funct_1 (k1_cayley X0)) \quad (3)$$

Assume the following.

$$\forall X0. (v15_algstr_0 (k2_cayley X0)) \wedge ((v1_monoid_0 (k2_cayley X0)) \wedge (l3_algstr_0 (k2_cayley X0))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v15_algstr_0 X1) \wedge ((v1_monoid_0 X1) \wedge (l3_algstr_0 X1))) \Rightarrow ((X1 = k2_cayley X0) \Leftrightarrow ((u1_struct_0 X1 = k1_cayley X0) \wedge (\forall X2. (m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (\forall X3. (m1_subset_1 X3 (u1_struct_0 X1)) \Rightarrow (k6_algstr_0 X1 X2 X3 = k3_relat_1 X2 X3)))))) \quad (5)$$

Theorem 1

$$\forall X0.\forall X1.(m1_subset_1 X1 (u1_struct_0 (k2_cayley X0)))\Rightarrow((v1_funct_1 X1)\wedge((v1_funct_2 X1 X0 X0)\wedge((v3_funct_2 X1 X0 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))))$$