

t22_sgraph1

(TMdWL1YM2c87M2vWSiL8sqhqzgsjkiWTALb)

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Let $m1_sgraph1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1_sgraph1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k1_subset_1 : \iota \Rightarrow \iota$ be given. Let $k2_sgraph1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_sgraph1 : \iota \Rightarrow \iota$ be given. Let $v1_sgraph1 : \iota \Rightarrow o$ be given. Let $l1_sgraph1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (X1 \in k2_sgraph1 X0) \Leftrightarrow & (((v1_finset_1 X1) \wedge \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0))) \wedge (\exists X2. \exists X3. (X2 \in \\ & X0) \wedge ((X3 \in X0) \wedge ((X2 \neq X3) \wedge (X1 = k2_tarski X2 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_sgraph1 X1 X0) \Rightarrow & (((v1_finset_1 (u1_struct_0 \\ & X1)) \wedge (m1_subset_1 (u1_struct_0 X1) (k1_zfmisc_1 X0))) \wedge ((v1_finset_1 \\ & (u1_sgraph1 X1)) \wedge (m1_subset_1 (u1_sgraph1 X1) (k1_zfmisc_1 (\\ & k2_sgraph1 (u1_struct_0 X1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m1_sgraph1 X1 X0) \Rightarrow ((v1_sgraph1 X1) \wedge (l1_sgraph1 X1)) \quad (4)$$

Assume the following.

$$\forall X0. k1_subset_1 X0 = k1_xboole_0 \quad (5)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.(l1_sgraph1 X0) \Rightarrow ((v1_sgraph1 X0) \Rightarrow (X0 = g1_sgraph1 (u1_struct_0 X0) (u1_sgraph1 X0))) \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.(m1_sgraph1 X1 X0) \Rightarrow (\neg(X1 \neq g1_sgraph1 k1_xboole_0 \\ & \quad (k1_subset_1 (k2_sgraph1 k1_xboole_0))) \wedge (\forall X2.\forall X3. \\ & (m1_subset_1 X3 (k1_zfmisc_1 (k2_sgraph1 X2))) \Rightarrow (\neg(\neg v1_xboole_0 \\ & \quad X2) \wedge (X1 = g1_sgraph1 X2 X3)))) \end{aligned}$$