

t5_compts_1 (TMYph-
FaD9HZZTPiAE27VxbJcUJX5W6bbRtM)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v1_compts_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v2_tops_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_setfam_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v3_finset_1 : \iota \Rightarrow o$ be given. Let $k1_setfam_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow ((v1_compts_1 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow (\neg(v3_finset_1 X1) \wedge ((v2_tops_2 \\ & X1 X0) \wedge (k6_setfam_1 (u1_struct_0 X0) X1 = k1_xboole_0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1.(m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski X0 X1) \wedge (r1_tarski X1 X2)) \Rightarrow (r1_tarski X0 X2) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))) \Rightarrow (k6_setfam_1 X0 X1 = k1_setfam_1 X1) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v3_finset_1 X0) \Leftrightarrow ((X0 \neq k1_xboole_0) \wedge (\forall X1. \\ & \neg(X1 \neq k1_xboole_0) \wedge ((r1_tarski X1 X0) \wedge ((v1_finset_1 X1) \wedge (k1_setfam_1 \\ & X1 = k1_xboole_0)))))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ & X0))) \Rightarrow ((v1_compts_1 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow (\neg(X1 \neq k1_xboole_0) \wedge ((v2_tops_2 \\ & X1 X0) \wedge ((k6_setfam_1 (u1_struct_0 X0) X1 = k1_xboole_0) \wedge (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow \\ & (\neg(X2 \neq k1_xboole_0) \wedge ((r1_tarski X2 X1) \wedge ((v1_finset_1 X2) \wedge (k6_setfam_1 \\ & (u1_struct_0 X0) X2 = k1_xboole_0))))))))) \end{aligned}$$