t21_fintopo6 (TMFdRden-FGY8svYRzTXA9RoEGWfKc6oqJQa)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ 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 $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_fin\_topo : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_fin\_topo : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_fintopo2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_margrel1 : \iota$ be given. Let $k2\_fintopo2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_fintopo2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_margrel1 : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $k2\_xboolean : \iota$ be given. Let $k1\_xboolean : \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X2))) \Rightarrow (m1\_subset\_1\ X0\ X2) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(\neg(\neg r1\_xboole\_0\ X0\ X1) \wedge (\forall X2.\neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2.(X2 \in X0) \wedge (X2 \in X1)) \wedge (r1\_xboole\_0\ X0\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((X1 \in k7\_fin\_topo\ X0\ X2) \Leftrightarrow ((\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \wedge (\exists X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0)) \wedge ((k1\_fintopo2\ X0\ X1\ X3\ X2 = k8\_margrel1) \wedge (k2\_fintopo2\ X0\ X1\ X4\ X2 = k8\_margrel1)))) \wedge (k4\_fintopo2\ X0\ X1\ X2 = k7\_margrel1))))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.\ (m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((X1\in k6\_fin\_topo\ X0\ X2)\Leftrightarrow((\exists X3.\ (m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\wedge(\exists X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X0))\wedge((k1\_fintopo2\ X0\ X1\ X3\ X2 = k8\_margrel1)\wedge(k2\_fintopo2\ X0\ X1\ X4\ X2 = k8\_margrel1))))\wedge(k4\_fintopo2\ X0\ X1\ X2 = k8\_margrel1)))))) \tag{4}$$

Assume the following.

$$\neg v1\_xboole\_0\ np\_\_1 \tag{5}$$

Assume the following.

$$k8\_margrel1 = k2\_xboolean \tag{6}$$

Assume the following.

$$k7\_margrel1 = k1\_xboolean \tag{7}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{8}$$

Assume the following.

$$v1\_xboole\_0\ k1\_xboole\_0 \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow(m1\_subset\_1\ (k7\_fin\_topo\ X0\ X1)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \tag{10}$$

Assume the following.

$$k2\_xboolean = np\_\_1 \tag{11}$$

Assume the following.

$$k1\_xboolean = k6\_numbers \tag{12}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(r1\_xboole\_0\ (k6\_fin\_topo\ X0\ X1)\ (k7\_fin\_topo\ X0\ X1)))$$