t21_topdim_1 (TMHJgBdwYKp-KVo5BDRktuAsZqKZutqT4AC2)

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Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ 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 $k1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_topdim\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_topdim\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_topdim\_1 : \iota \Rightarrow o$ be given. Let $k4\_topdim\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_pre\_topc : \iota \Rightarrow o$ be given. Let $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0)) \Rightarrow (\forall X1.\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X2.\ (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow (\forall X3.\ (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k1\_pre\_topc\ X0\ X1))))) \Rightarrow ((X3 = X2) \Rightarrow (k1\_pre\_topc\ (k1\_pre\_topc\ X0\ X1)\ X3 = k1\_pre\_topc\ X0\ X2))))) \tag{1}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0)) \Rightarrow (\forall X1.\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))) \Rightarrow ((v3\_topdim\_1\ (k1\_pre\_topc\ X0\ X1)) \Rightarrow (v1\_topdim\_1\ X1\ X0))) \tag{2}$$

Assume the following.

$$\forall X0.((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0)) \Rightarrow (\forall X1.\ ((v1\_topdim\_1\ X1\ X0) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow ((v3\_topdim\_1\ (k1\_pre\_topc\ X0\ X1)) \wedge (k4\_topdim\_1\ (k1\_pre\_topc\ X0\ X1) = k2\_topdim\_1\ X0\ X1))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \Rightarrow ((v1\_pre\_topc\ (k1\_pre\_topc\ X0\ X1)) \wedge (v2\_pre\_topc\ (k1\_pre\_topc\ X0\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0) \Rightarrow (\forall X1.(m1\_pre\_topc\ X1\ X0) \Rightarrow (l1\_pre\_topc\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_pre\_topc\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow((v1\_pre\_topc\ (k1\_pre\_topc\ X0\ X1))\wedge(m1\_pre\_topc\ (k1\_pre\_topc\ X0\ X1)\ X0)) \tag{6}$$

Theorem 1

$$\forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1.\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X2.\ (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X3.\ (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k1\_pre\_topc\ X0\ X1)))))\Rightarrow(((X3 = X2)\wedge(v1\_topdim\_1\ X2\ X0))\Rightarrow((v1\_topdim\_1\ X3\ (k1\_pre\_topc\ X0\ X1))\wedge(k2\_topdim\_1\ (k1\_pre\_topc\ X0\ X1)\ X3 = k2\_topdim\_1\ X0\ X2))))))$$