

t44\_connsp\_1  
(TMP6WBxQWdgCkV7aJY6yYeriH29NwJFRLiv)

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Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v2\_connsp\_1 : \iota \Rightarrow \iota \Rightarrow o$  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  $g1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_pre\_topc : \iota \Rightarrow \iota$  be given. Let  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Assume the following.

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

Assume the following.

$$\forall X0.(l1\_pre\_topc X0) \Rightarrow (m1\_pre\_topc (g1\_pre\_topc (u1\_struct\_0 X0) (u1\_pre\_topc X0)) X0) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))) \Rightarrow (\forall X2.\forall X3.(g1\_pre\_topc X0 X1 = g1\_pre\_topc \\ & X2 X3) \Rightarrow ((X0 = X2) \wedge (X1 = X3))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow ((v1\_pre\_topc \\ & (g1\_pre\_topc (u1\_struct\_0 X0) (u1\_pre\_topc X0))) \wedge (v2\_pre\_topc \\ & (g1\_pre\_topc (u1\_struct\_0 X0) (u1\_pre\_topc X0)))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0) \Rightarrow (m1\_subset\_1 (u1\_pre\_topc X0) (k1\_zfmisc\_1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow((v1\_pre\_topc (g1\_pre\_topc X0 X1))\wedge(l1\_pre\_topc (g1\_pre\_topc X0 X1))) \quad (6)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0)\Rightarrow((v1\_pre\_topc X0)\Rightarrow(X0 = g1\_pre\_topc (u1\_struct\_0 X0) (u1\_pre\_topc X0))) \quad (7)$$

**Theorem 1**

$$\forall X0.((v2\_pre\_topc X0)\wedge(l1\_pre\_topc X0))\Rightarrow(\forall X1. ((v2\_connsp\_1 X1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))))\Leftrightarrow((v2\_connsp\_1 X1 (g1\_pre\_topc (u1\_struct\_0 X0) (u1\_pre\_topc X0)))\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 (g1\_pre\_topc (u1\_struct\_0 X0) (u1\_pre\_topc X0)))))))$$