

t64\_tops\_1  
(TMRwNParisN58YkrDEUFrtnaujBngwJ3QSe)

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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  $v6\_tops\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. ((l1\_pre\_topc X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (k2\_pre\_topc X0 (k2\_pre\_topc X0 X1) = k2\_pre\_topc X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_pre\_topc X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (k1\_tops\_1 X0 (k1\_tops\_1 X0 X1) = k1\_tops\_1 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. (l1\_pre\_topc X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (k2\_tops\_1 X0 X1 = k7\_subset\_1 (u1\_struct\_0 X0) (k2\_pre\_topc X0 X1) (k1\_tops\_1 X0 X1))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_pre\_topc X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow (m1\_subset\_1 (k2\_pre\_topc X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \quad (4)$$

Assume the following.

$$\forall X0. (l1\_pre\_topc X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow ((v6\_tops\_1 X1 X0) \Leftrightarrow (X1 = k1\_tops\_1 X0 (k2\_pre\_topc X0 X1))) \quad (5)$$

**Theorem 1**

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow((v6\_tops\_1\ X1\ X0)\Rightarrow((k2\_tops\_1\ X0\ X1 = k2\_tops\_1\ X0\ (k2\_pre\_topc\ X0\ X1))\wedge(k2\_tops\_1\ X0\ (k2\_pre\_topc\ X0\ X1) = k7\_subset\_1\ (u1\_struct\_0\ X0)\ (k2\_pre\_topc\ X0\ X1)\ X1))))))$$