

## t6\_mfold\_2

(TMe1CL1c6EPheXtLQkzXYN4GnXskE9GimkM)

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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  $r1\_metrizts : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_mfold\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_t\_0topsp : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_borsuk\_3 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $k1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. ((l1\_pre\_topc X0) \wedge (l1\_pre\_topc X1)) \Rightarrow (r1\_mfold\_2 X0 X1) \Rightarrow (r1\_mfold\_2 X1 X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_pre\_topc X0) \wedge (l1\_pre\_topc X1)) \Rightarrow (r1\_mfold\_2 X0 X1) \Leftrightarrow (r1\_t\_0topsp X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_pre\_topc X0) \wedge (l1\_pre\_topc X1)) \Rightarrow (r1\_borsuk\_3 X0 X1) \Leftrightarrow (r1\_t\_0topsp X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. (l1\_pre\_topc X0) \Rightarrow (\forall X1. (m1\_pre\_topc X1 X0) \Rightarrow (l1\_pre\_topc X1)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_pre\_topc X0) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \Rightarrow ((v1\_pre\_topc (k1\_pre\_topc X0 X1)) \wedge (m1\_pre\_topc (k1\_pre\_topc X0 X1) X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & ((v2\_pre\_topc X1) \wedge (l1\_pre\_topc X1)) \Rightarrow (\forall X2. (m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X3. (m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (u1\_struct\_0 X1))) \Rightarrow ((r1\_metrizts X0 X1 X2 X3) \Leftrightarrow \\ & (r1\_borsuk\_3 (k1\_pre\_topc X0 X2) (k1\_pre\_topc X1 X3)))))) \end{aligned} \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1. \\ & ((v2\_pre\_topc\ X1)\wedge(l1\_pre\_topc\ X1))\Rightarrow(\forall X2.(m1\_subset\_1 \\ & X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1 \\ & X3\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))\Rightarrow((r1\_metrizts\ X0\ X1\ X2\ X3)\Rightarrow \\ & (r1\_metrizts\ X1\ X0\ X3\ X2)))))) \end{aligned}$$