

# t46\_borsuk\_4 (TMYTCjzXD- SZFXXHuzWKbc9RU sakQbbLYkyC)

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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  $k1\_borsuk\_4 : \iota$  be given. Let  $k5\_topmetr : \iota$  be given. Let  $k2\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $v1\_tsep\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k17\_borsuk\_1 : \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 (u1\_struct\_0 k5\_topmetr))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 k5\_topmetr)) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (u1\_struct\_0 k5\_topmetr)) \Rightarrow ((X0 = k2\_rcomp\_1 X1 \\ & X2) \Rightarrow (v3\_pre\_topc X0 k5\_topmetr)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 k5\_topmetr)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (u1\_struct\_0 k5\_topmetr)) \Rightarrow (m1\_subset\_1 (k2\_rcomp\_1 \\ & X0 X1) (k1\_zfmisc\_1 (u1\_struct\_0 k5\_topmetr)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & ((v1\_tsep\_1 X1 X0) \wedge (m1\_pre\_topc X1 X0)) \Rightarrow (\forall X2.(m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X3.(m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (u1\_struct\_0 X1))) \Rightarrow ((X2 = X3) \Rightarrow ((v3\_pre\_topc X3 \\ & X1) \Leftrightarrow (v3\_pre\_topc X2 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$k5\_topmetr = k17\_borsuk\_1 \quad (4)$$

Assume the following.

$$\begin{aligned} & (\neg v2\_struct\_0 k17\_borsuk\_1) \wedge ((v1\_pre\_topc k17\_borsuk\_1) \wedge \\ & v2\_pre\_topc k17\_borsuk\_1) \end{aligned} \quad (5)$$

Assume the following.

$$(v1\_pre\_topc\ k1\_borsuk\_4)\wedge(v1\_tsep\_1\ k1\_borsuk\_4\ k5\_topmetr) \quad (6)$$

Assume the following.

$$(v1\_pre\_topc\ k1\_borsuk\_4)\wedge(m1\_pre\_topc\ k1\_borsuk\_4\ k5\_topmetr) \quad (7)$$

Assume the following.

$$l1\_pre\_topc\ k17\_borsuk\_1 \quad (8)$$

**Theorem 1**

$$\begin{aligned} &\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ k1\_borsuk\_4)))\Rightarrow \\ &\quad (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ k5\_topmetr))\Rightarrow(\forall X2. \\ &(m1\_subset\_1\ X2\ (u1\_struct\_0\ k5\_topmetr))\Rightarrow((X0 = k2\_rcomp\_1\ X1 \\ &\quad X2)\Rightarrow(v3\_pre\_topc\ X0\ k1\_borsuk\_4)))) \end{aligned}$$