

t14\_borsuk\_6 (TMGXcwhduXbrXGVaRr-  
Jak58MsBmiDfNnM27)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v3\_topmetr : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (l1\_struct\_0 X0) \Rightarrow ((v3\_topmetr X0) \Leftrightarrow (v3\_membered (u1\_struct\_0 X0))) \quad (2)$$

Assume the following.

$$\forall X0. (v3\_membered X0) \Leftrightarrow (\forall X1. (X1 \in X0) \Rightarrow (v1\_xreal\_0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. (v3\_membered X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 X0) \Rightarrow (v1\_xreal\_0 X1)) \quad (4)$$

**Theorem 1**

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow ((v3\_topmetr X0) \Leftrightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (v1\_xreal\_0 X1)))$$