t79_borsuk_5 (TMWuX7Le773ZATTerwFQpZYkk8XAAW2b4mp)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v2\_connsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_topmetr : \iota$ be given. Let $v2\_compts\_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_measure5 : \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge ((v2\_connsp\_1\ X0\ k3\_topmetr) \wedge ((v2\_compts\_1\ X0\ k3\_topmetr) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ k3\_topmetr)))))) \Rightarrow ((\neg v1\_xboole\_0\ X0) \wedge ((v2\_measure5\ X0) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers)))) \tag{1}$$

Assume the following.

$$u1\_struct\_0\ k3\_topmetr = k1\_numbers \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ k1\_numbers)) \Rightarrow (((\neg v1\_xboole\_0\ X0) \wedge (v2\_measure5\ X0)) \Leftrightarrow (\exists X1.(m1\_subset\_1\ X1\ k1\_numbers) \wedge (\exists X2.(m1\_subset\_1\ X2\ k1\_numbers) \wedge ((r1\_xxreal\_0\ X1\ X2) \wedge (X0 = k1\_rcomp\_1\ X1\ X2))))) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (v1\_xreal\_0\ X0) \tag{4}$$

Theorem 1

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge ((v2\_connsp\_1\ X0\ k3\_topmetr) \wedge ((v2\_compts\_1\ X0\ k3\_topmetr) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ k3\_topmetr)))))) \Rightarrow (\exists X1.(v1\_xreal\_0\ X1) \wedge (\exists X2.(v1\_xreal\_0\ X2) \wedge ((r1\_xxreal\_0\ X1\ X2) \wedge (X0 = k1\_rcomp\_1\ X1\ X2))))$$