t76_borsuk_5 (TMKBhSMeY2Sj93dcZYCteFubPkt513FDFXd)

October 27, 2020

Let $v2\_connsp\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_topmetr : \iota$ 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 $k1\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ k3\_topmetr))) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg(\neg X1 \in X0) \wedge ((\exists X2.(v1\_xreal\_0\ X2) \wedge (\exists X3.(v1\_xreal\_0\ X3) \wedge ((X2 \in X0) \wedge ((X3 \in X0) \wedge ((\neg r1\_xxreal\_0\ X1\ X2) \wedge (\neg r1\_xxreal\_0\ X3\ X1)))))) \wedge (v2\_connsp\_1\ X0\ k3\_topmetr)))) \tag{1}$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X1\ X0)) \Rightarrow (X0 = X1))) \tag{3}$$

Theorem 1

$$\forall X0.((v2\_connsp\_1\ X0\ k3\_topmetr) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (u1\_struct\_0\ k3\_topmetr)))) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xreal\_0\ X2) \Rightarrow (\forall X3.(v1\_xreal\_0\ X3) \Rightarrow (((r1\_xxreal\_0\ X1\ X2) \wedge (r1\_xxreal\_0\ X2\ X3) \wedge ((X1 \in X0) \wedge (X3 \in X0)))) \Rightarrow (X2 \in X0)))))$$