

t57_borsuk_5

(TMFJ3G89zX9j99JGxdQTxaEFkyM1sNYQGv5)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_borsuk_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_borsuk_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_rat_1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (\neg(\neg r1_xboole_0 X0 X1) \wedge (\forall X2. \neg(X2 \in X0) \wedge (X2 \in X1))) \wedge (\neg(\exists X2. (X2 \in X0) \wedge (X2 \in X1))) \wedge (r1_xboole_0 X0 X1) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow (\forall X2. (v1_xreal_0 X2) \Rightarrow ((X2 \in k3_borsuk_5 X0 X1) \Leftrightarrow ((\neg v1_rat_1 X2) \wedge (\neg r1_xxreal_0 X2 X0) \wedge (\neg r1_xxreal_0 X1 X2)))))) \quad (3)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow (\forall X2. (v1_xreal_0 X2) \Rightarrow ((X2 \in k2_borsuk_5 X0 X1) \Leftrightarrow ((v1_rat_1 X2) \wedge ((\neg r1_xxreal_0 X2 X0) \wedge (\neg r1_xxreal_0 X1 X2)))))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k2_borsuk_5 X0 X1) (k1_zfmisc_1 k1_numbers)) \quad (5)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (6)$$

Assume the following.

$$\forall X0. (v1_rat_1 X0) \Rightarrow (v1_xreal_0 X0) \quad (7)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (r1_xboole_0 (k3_borsuk_5 X0 X1) (k2_borsuk_5 X0 X1)))$$