

t5_borsuk_5 (TMQFB-
wXXBxo9hwPaZCmwwz8UZbaom5L4d4v)

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Let $r1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

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.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (\neg v1_xboole_0 X1)) \Rightarrow ((r1_subset_1 X0 X1) \Leftrightarrow (r1_xboole_0 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (X3 = k1_enumset1 X0 X1 X2) \Leftrightarrow (\forall X4. (X4 \in X3) \Leftrightarrow (\neg(X4 \neq X0) \wedge ((X4 \neq X1) \wedge (X4 \neq X2)))) \quad (4)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. (r1_subset_1 (k1_enumset1 X0 X1 X2) (k1_enumset1 X3 X4 X5)) \Rightarrow ((X0 \neq X3) \wedge ((X0 \neq X4) \wedge ((X0 \neq X5) \wedge ((X1 \neq X3) \wedge ((X1 \neq X4) \wedge ((X1 \neq X5) \wedge ((X2 \neq X3) \wedge ((X2 \neq X4) \wedge (X2 \neq X5))))))))))$$