

t8_xregular
(TMHiVV2SB8AtXR2oYu3gGtUZ8zXQKKtXXfj)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\exists X1. (X1 \in X0) \wedge (r1_xboole_0 X1 X0)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. \forall X4. (X4 = k2_enumset1 X0 X1 X2 X3) \Leftrightarrow (\forall X5. (X5 \in X4) \Leftrightarrow (\neg(X5 \neq X0) \wedge ((X5 \neq X1) \wedge ((X5 \neq X2) \wedge (X5 \neq X3)))))) \quad (4)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. \forall X3. \neg(X0 \in X1) \wedge ((X1 \in X2) \wedge ((X2 \in X3) \wedge (X3 \in X0)))$$