

l17_enumset1 (TMQYb- DYVHY6vGUebQKFUTCj1PCDfTxQp7o1)

October 27, 2020

Let $k3_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ (X5 = k3_enumset1 X0 X1 X2 X3 X4) \Leftrightarrow (\forall X6. (X6 \in X5) \Leftrightarrow (\neg (X6 \neq X0) \wedge \\ ((X6 \neq X1) \wedge ((X6 \neq X2) \wedge ((X6 \neq X3) \wedge (X6 \neq X4)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (X2 = k2_tarski X0 X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \end{aligned} \quad (3)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. k3_enumset1 \\ X0 X1 X2 X3 X4 = k2_xboole_0 (k1_enumset1 X0 X1 X2) (k2_tarski X3 X4) \end{aligned}$$