

l35_enumset1
(TMHkF9hVABDj7U2QVG2qYzoNdYD1YXzLX8F)

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Let $k6_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & \forall X6.\forall X7.\forall X8.(X8 = k6_enumset1 X0 X1 X2 X3 X4 \\ & X5 X6 X7) \Leftrightarrow (\forall X9.(X9 \in X8) \Leftrightarrow (\neg(X9 \neq X0) \wedge ((X9 \neq X1) \wedge ((X9 \neq X2) \wedge \\ & ((X9 \neq X3) \wedge ((X9 \neq X4) \wedge ((X9 \neq X5) \wedge ((X9 \neq X6) \wedge (X9 \neq X7)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3. \\ & (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(X4 = k2_enumset1 \\ & X0 X1 X2 X3) \Leftrightarrow (\forall X5.(X5 \in X4) \Leftrightarrow (\neg(X5 \neq X0) \wedge ((X5 \neq X1) \wedge ((X5 \neq X2) \wedge \\ & (X5 \neq X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & \forall X6.\forall X7.k6_enumset1 X0 X1 X2 X3 X4 X5 X6 X7 = k2_xboole_0 \\ & (k2_enumset1 X0 X1 X2 X3) (k2_enumset1 X4 X5 X6 X7) \end{aligned}$$