

t2_borsuk_5
(TMGsNxJ5r2Bs9K1XroMLZyEieqFPbNhpXGK)

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Let $k4_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ k4_enumset1\ X0\ X1\ X2\ X3\ X4\ X5 = & k2_xboole_0\ (k1_enumset1\ X0\ X1\ X2)\ (\\ & k1_enumset1\ X3\ X4\ X5) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ \forall X6. (X6 = k4_enumset1\ X0\ X1\ X2\ X3\ X4\ X5) \Leftrightarrow & (\forall X7. (X7 \in X6) \Leftrightarrow \\ (\neg (X7 \neq X0) \wedge ((X7 \neq X1) \wedge ((X7 \neq X2) \wedge ((X7 \neq X3) \wedge ((X7 \neq X4) \wedge (X7 \neq X5))))))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ k4_enumset1\ X0\ X1\ X2\ X3\ X4\ X5 = & k2_xboole_0\ (k1_enumset1\ X0\ X2\ X5)\ (\\ & k1_enumset1\ X1\ X3\ X4) \end{aligned}$$