

t6_pencil_1 (TMQ-
Goz54uC5LY81BKahK2VFSXmAJmRRzFsV)

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Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_3 : \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(r1_ordinal1\ np_3\ (k1_card_1\ X0)) \Leftrightarrow (\exists X1.\exists X2. \\ \exists X3.(X1 \in X0) \wedge ((X2 \in X0) \wedge ((X3 \in X0) \wedge ((X1 \neq X2) \wedge ((X1 \neq X3) \wedge (\\ X2 \neq X3)))))) \end{aligned} \quad (1)$$

Theorem 1

$$\begin{aligned} \forall X0.(r1_ordinal1\ np_3\ (k1_card_1\ X0)) \Rightarrow (\forall X1.\forall X2. \\ \exists X3.(X3 \in X0) \wedge ((X1 \neq X3) \wedge (X2 \neq X3))) \end{aligned}$$