

t4\_pencil\_1

(TMH2vA7zBDgWKwXyyxAVHhyQqXTsUPVp5QJ)

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Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_2 : \iota$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_zfmisc\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(r1\_ordinal1\ np\_2\ (k1\_card\_1\ X0)) \Leftrightarrow (\exists X1.\exists X2. (X1 \in X0) \wedge ((X2 \in X0) \wedge (X1 \neq X2))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_zfmisc\_1\ X0) \Leftrightarrow (\forall X1.\forall X2. ((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (X1 = X2)) \quad (2)$$

**Theorem 1**  $\forall X0.(r1\_ordinal1\ np\_2\ (k1\_card\_1\ X0)) \Leftrightarrow (\neg v1\_zfmisc\_1\ X0)$ .