

## t21\_card\_2

(TMHZBRwAjwjFy8Ha7yhxwHe9J9jKLTFoJZq)

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Let  $v1\_card\_1 : \iota \Rightarrow o$  be given. Let  $k2\_card\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $r2\_wellord2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (r2\_wellord2 (k2\_zfmisc\_1 X0 X1) (k2\_zfmisc\_1 \\ & (k1\_card\_1 X0) X1)) \wedge ((r2\_wellord2 (k2\_zfmisc\_1 X0 X1) (k2\_zfmisc\_1 \\ & X0 (k1\_card\_1 X1))) \wedge ((r2\_wellord2 (k2\_zfmisc\_1 X0 X1) (k2\_zfmisc\_1 \\ & (k1\_card\_1 X0) (k1\_card\_1 X1))) \wedge ((k1\_card\_1 (k2\_zfmisc\_1 X0 X1) = \\ & k1\_card\_1 (k2\_zfmisc\_1 (k1\_card\_1 X0) X1)) \wedge ((k1\_card\_1 (k2\_zfmisc\_1 \\ & X0 X1) = k1\_card\_1 (k2\_zfmisc\_1 X0 (k1\_card\_1 X1))) \wedge (k1\_card\_1 \\ & (k2\_zfmisc\_1 X0 X1) = k1\_card\_1 (k2\_zfmisc\_1 (k1\_card\_1 X0) (k1\_card\_1 \\ & X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (r2\_wellord2 X0 (k2\_zfmisc\_1 X0 (k1\_tarski X1))) \wedge (k1\_card\_1 X0 = k1\_card\_1 (k2\_zfmisc\_1 X0 (k1\_tarski X1))) \tag{2}$$

Assume the following.

$$\forall X0. k1\_card\_1 (k1\_tarski X0) = np\_1 \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. r2\_wellord2 X0 X0 \tag{4}$$

Assume the following.

$$\forall X0. v1\_card\_1 (k1\_card\_1 X0) \tag{5}$$

Assume the following.

$$\forall X0. (v1\_card\_1 X0) \Rightarrow (\forall X1. (v1\_card\_1 X1) \Rightarrow (k2\_card\_2 X0 X1 = k1\_card\_1 (k2\_zfmisc\_1 X0 X1))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_card\_1 X1)\Rightarrow((X1 = k1\_card\_1 X0)\Leftrightarrow(r2\_wellord2 X0 X1)) \quad (7)$$

**Theorem 1**  $\forall X0.(v1\_card\_1 X0)\Rightarrow(k2\_card\_2 X0 np_{-1} = X0)$ .