t18_card_4 (TMTyC6y88u2WLNcbt18hZf9CL6ytpbJ8V3y)

October 27, 2020

Let $v1\_finset\_1 : \iota \Rightarrow o$ 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 $v1\_card\_1 : \iota \Rightarrow o$ be given. Let $k2\_card\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.(r2\_wellord2\ X0\ X1) \Leftrightarrow (k1\_card\_1\ X0 = k1\_card\_1\ X1) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_card\_1\ X0) \Rightarrow ((\neg v1\_finset\_1\ X0) \Rightarrow (k2\_card\_2\ X0\ X0 = X0)) \tag{3}$$

Assume the following.

$$\forall X0.(\neg v1\_finset\_1\ X0) \Rightarrow ((\neg v1\_finset\_1\ (k1\_card\_1\ X0)) \wedge (v1\_card\_1\ (k1\_card\_1\ X0))) \tag{4}$$

Assume the following.

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

Assume the following.

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

Theorem 1

$$\forall X0.(\neg v1\_finset\_1\ X0) \Rightarrow ((r2\_wellord2\ (k2\_zfmisc\_1\ X0\ X0)\ X0) \wedge (k1\_card\_1\ (k2\_zfmisc\_1\ X0\ X0) = k1\_card\_1\ X0))$$