t59_card_1 (TMHTfJ-MagEd6Ksf9qHer8g1bdXmGxnNKwTY)

October 27, 2020

Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v2\_funct\_1 : \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $r2\_wellord2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.((r2\_wellord2\ X0\ X1) \wedge (v1\_finset\_1\ X0)) \Rightarrow (v1\_finset\_1\ X1) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r2\_wellord2\ X0\ X1) \Rightarrow (r2\_wellord2\ X1\ X0) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(r2\_wellord2\ X0\ X1) \Leftrightarrow (\exists X2.((v1\_relat\_1\ X2) \wedge (v1\_funct\_1\ X2)) \wedge ((v2\_funct\_1\ X2) \wedge ((k9\_xtuple\_0\ X2 = X0) \wedge (k10\_xtuple\_0\ X2 = X1)))) \tag{3}$$

Theorem 1

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\neg(\neg v1\_finset\_1\ (k9\_xtuple\_0\ X0)) \wedge ((v2\_funct\_1\ X0) \wedge (v1\_finset\_1\ (k10\_xtuple\_0\ X0))))$$