

## t19\_card\_1

(TMc9KnPcQeafXkpLXrNnn7imTdmyL3sSFNe)

October 27, 2020

Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k3\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_ordinal1 : \iota \Rightarrow \iota$  be given. Let  $k2\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v4\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v5\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal2 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. k3\_tarski (k1\_tarski X0) = X0 \quad (1)$$

Assume the following.

$$\begin{aligned} & (k3\_card\_1 k1\_xboole\_0 = k1\_card\_1 k4\_ordinal1) \wedge (\forall X0. \\ & (v3\_ordinal1 X0) \Rightarrow (k3\_card\_1 (k1\_ordinal1 X0) = k2\_card\_1 (k3\_tarski \\ & (k1\_tarski (k3\_card\_1 X0)))))) \wedge (\forall X0. (v3\_ordinal1 X0) \Rightarrow \\ & ((v4\_ordinal1 X0) \Rightarrow ((X0 = k1\_xboole\_0) \vee (\forall X1. ((v1\_relat\_1 \\ & X1) \wedge ((v1\_funct\_1 X1) \wedge (v5\_ordinal1 X1))) \Rightarrow (((k9\_xtuple\_0 X1 = \\ & X0) \wedge (\forall X2. (v3\_ordinal1 X2) \Rightarrow ((X2 \in X0) \Rightarrow (k1\_funct\_1 X1 X2 = \\ & k3\_card\_1 X2)))))) \Rightarrow (k3\_card\_1 X0 = k1\_card\_1 (k4\_ordinal2 X1)))))) \end{aligned} \quad (2)$$

### Theorem 1

$$\forall X0. (v3\_ordinal1 X0) \Rightarrow (k3\_card\_1 (k1\_ordinal1 X0) = k2\_card\_1 (k3\_card\_1 X0))$$