

## t93\_card\_3

(TMVXcx45XzRXwyHP2cQaJyDhQpcqKo7rDTj)

October 27, 2020

Let  $v4\_card\_3 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$k1\_card\_1 \ k4\_ordinal1 = k4\_ordinal1 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_ordinal1 \ (k1\_card\_1 \ X0) \ (k1\_card\_1 \ X1)) \Leftrightarrow (\exists X2. ((v1\_relat\_1 \ X2) \wedge (v1\_funct\_1 \ X2)) \wedge ((k9\_xtuple\_0 \ X2 = X1) \wedge (r1\_tarski \ X0 \ (k10\_xtuple\_0 \ X2)))) \quad (2)$$

Assume the following.

$$\forall X0. (v4\_card\_3 \ X0) \Leftrightarrow (r1\_ordinal1 \ (k1\_card\_1 \ X0) \ k4\_ordinal1) \quad (3)$$

### Theorem 1

$$\forall X0. (v4\_card\_3 \ X0) \Leftrightarrow (\exists X1. ((v1\_relat\_1 \ X1) \wedge (v1\_funct\_1 \ X1)) \wedge ((k9\_xtuple\_0 \ X1 = k4\_ordinal1) \wedge (r1\_tarski \ X0 \ (k10\_xtuple\_0 \ X1))))$$