

t2\_card\_1

(TMNHkhaCP4mnqaBZr3jatKNq3xvTHKgEFq6)

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Let  $v1\_card\_1 : \iota \Rightarrow o$  be given. Let  $r2\_wellord2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (r2\_wellord2 X0 X1) \Rightarrow (r2\_wellord2 X1 X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. r2\_wellord2 X0 X0 \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v3\_ordinal1 X0) \wedge (v3\_ordinal1 X1)) \Rightarrow (r1\_ordinal1 X0 X1) \Leftrightarrow (r1\_tarski X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. (v1\_card\_1 X0) \Leftrightarrow (\exists X1. (v3\_ordinal1 X1) \wedge ((X0 = X1) \wedge (\forall X2. (v3\_ordinal1 X2) \Rightarrow ((r2\_wellord2 X2 X1) \Rightarrow (r1\_ordinal1 X1 X2)))))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \quad (5)$$

Assume the following.

$$\forall X0. (v1\_card\_1 X0) \Rightarrow (v3\_ordinal1 X0) \quad (6)$$

**Theorem 1**

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