

## t34\_card\_1

(TMazYEknxu9nUoACZKDvuRiq1GowE23Pb3)

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Let  $r2\_wellord2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v2\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k7\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k9\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. ((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \Rightarrow ((v2\_funct\_1 X2) \Rightarrow (k7\_relat\_1 X2 (k6\_subset\_1 X0 X1) = k6\_subset\_1 (k7\_relat\_1 X2 X0) (k7\_relat\_1 X2 X1))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow ((X0 \in k9\_xtuple\_0 X1) \Rightarrow (k9\_relat\_1 X1 X0 = k1\_tarski (k1\_funct\_1 X1 X0))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 (k1\_zfmisc\_1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (((r1\_tarski X0 (k9\_xtuple\_0 X1)) \wedge (v2\_funct\_1 X1)) \Rightarrow (r2\_wellord2 X0 (k7\_relat\_1 X1 X0))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((X0 \in X1) \wedge (X2 \in X1)) \Rightarrow (r2\_wellord2 (k6\_subset\_1 X1 (k1\_tarski X0)) (k6\_subset\_1 X1 (k1\_tarski X2))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r2\_wellord2 X0 X1) \wedge (r2\_wellord2 X1 X2)) \Rightarrow (r2\_wellord2 X0 X2) \quad (6)$$

Assume the following.

$$\forall X0.(v1\_relat\_1 X0) \Rightarrow (k7\_relat\_1 X0 (k9\_xtuple\_0 X0) = k10\_xtuple\_0 X0) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.m1\_subset\_1 (k6\_subset\_1 X0 X1) (k1\_zfmisc\_1 X0) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(r2\_wellord2 X0 X1) \Leftrightarrow (\exists X2.((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \wedge ((v2\_funct\_1 X2) \wedge ((k9\_xtuple\_0 X2 = X0) \wedge (k10\_xtuple\_0 X2 = X1)))) \quad (9)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1.(X1 = k10\_xtuple\_0 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9\_xtuple\_0 X0) \wedge (X2 = k1\_funct\_1 X0 X3)))) \quad (10)$$

Assume the following.

$$\forall X0.(v1\_relat\_1 X0) \Rightarrow (\forall X1.k9\_relat\_1 X0 X1 = k7\_relat\_1 X0 (k1\_tarski X1)) \quad (11)$$

**Theorem 1**

$$\forall X0.\forall X1.\forall X2.\forall X3.((r2\_wellord2 X0 X1) \wedge ((X2 \in X0) \wedge (X3 \in X1))) \Rightarrow (r2\_wellord2 (k6\_subset\_1 X0 (k1\_tarski X2)) (k6\_subset\_1 X1 (k1\_tarski X3)))$$