

t34\_card\_fin  
(TMc1XqQunEkN3GmT6agCFP1CshmAJeqBFcM)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $k8\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k2\_card\_fin : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v5\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v4\_valued\_0 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v1\_afinsq\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \Rightarrow (\forall X3.((v1\_relat\_1 X3) \wedge (v1\_funct\_1 X3)) \Rightarrow (\forall X4. \\ & ((v1\_relat\_1 X4) \wedge (v1\_funct\_1 X4)) \Rightarrow ((k8\_relat\_1 X3 (k1\_tarski X0) = k8\_relat\_1 X4 (k1\_tarski X1)) \Rightarrow (k2\_card\_fin X2 X3 X0 = k2\_card\_fin X2 X4 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (k2\_card\_fin X1 k1\_xboole\_0 X0 = k3\_tarski (k10\_xtuple\_0 X1)) \quad (3)$$

Assume the following.

$$\exists X0.(v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k5\_numbers) \wedge ((v1\_funct\_1 X0) \wedge ((v1\_xboole\_0 X0) \wedge ((v5\_ordinal1 X0) \wedge ((v4\_valued\_0 X0) \wedge ((v1\_finset\_1 X0) \wedge (v1\_afinsq\_1 X0)))))))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xboole\_0 X0) \wedge (v1\_relat\_1 X0)) \Rightarrow (v1\_xboole\_0 (k8\_relat\_1 X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (v1\_relat\_1 X0) \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (\forall X2. \\ & ((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \Rightarrow ((k8\_relat\_1 X1 (k1\_tarski \\ & X0) = k1\_xboole\_0) \Rightarrow (k2\_card\_fin X2 X1 X0 = k3\_tarski (k10\_xtuple\_0 \\ & X2)))) \end{aligned}$$