

## t100\_card.3

(TMN6RbvkkqY8R6jiMzPFetQhzxoGL5wQKwyV)

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Let  $v4\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v2\_card\_3 : \iota \Rightarrow o$  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  $k10\_card\_3 : \iota \Rightarrow \iota$  be given. Let  $k9\_card\_3 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_card\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.((v4\_funct\_1 X0) \wedge (v2\_card\_3 X0)) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow ((X1 \in X0) \Rightarrow (k9\_xtuple\_0 X1 = k9\_card\_3 X0))) \quad (1)$$

Assume the following.

$$\forall X0.(v4\_funct\_1 X0) \Rightarrow ((v1\_relat\_1 (k10\_card\_3 X0)) \wedge (v1\_funct\_1 (k10\_card\_3 X0))) \quad (2)$$

Assume the following.

$$\forall X0.(v4\_funct\_1 X0) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow ((X1 = k10\_card\_3 X0) \Leftrightarrow ((k9\_xtuple\_0 X1 = k9\_card\_3 X0) \wedge (\forall X2.(X2 \in k9\_xtuple\_0 X1) \Rightarrow (k1\_funct\_1 X1 X2 = k5\_card\_3 X2 X0)))))) \quad (3)$$

**Theorem 1**

$$\forall X0.((v4\_funct\_1 X0) \wedge (v2\_card\_3 X0)) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow ((X1 \in X0) \Rightarrow (k9\_xtuple\_0 X1 = k9\_xtuple\_0 (k10\_card\_3 X0))))$$