

t34\_afinsq\_1  
(TMQRhxgngRrUi9C2kAthRcWiSMo2oW55rFz)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v5\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k5\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k1\_card\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. k5\_afinsq\_1 X0 = k1\_tarski (k4\_tarski k6\_numbers X0) \quad (1)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (2)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge ((v5\_ordinal1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finset\_1 X0)))) \Rightarrow (k1\_afinsq\_1 X0 = k1\_card\_1 X0) \quad (3)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge ((v5\_ordinal1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finset\_1 X0)))) \Rightarrow (k1\_card\_1 X0 = k9\_xtuple\_0 X0) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow ((X1 = k5\_afinsq\_1 X0) \Leftrightarrow ((k9\_xtuple\_0 X1 = np\_1) \wedge (k1\_funct\_1 X1 k6\_numbers = X0))) \quad (5)$$

**Theorem 1**

$$\forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge ((v5\_ordinal1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finset\_1 X1)))) \Rightarrow ((X1 = k5\_afinsq\_1 X0) \Leftrightarrow ((k1\_afinsq\_1 X1 = np\_1) \wedge (k1\_funct\_1 X1 k6\_numbers = X0)))$$