

t37\_afinsq\_1 (TMS-  
gjJ5KCnFudZ1uL5eC3eHGa9Br3cNWvpM)

October 27, 2020

Let  $k7\_afinsq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_afinsq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. 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  $k3\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_relat\_1 X0) \wedge ((v5\_ordinal1 X0) \wedge ((v1\_funct\_1 \\ & X0) \wedge (v1\_finset\_1 X0)))) \Rightarrow (\forall X1. ((v1\_relat\_1 X1) \wedge ((v5\_ordinal1 \\ & X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finset\_1 X1)))) \Rightarrow (\forall X2. ((v1\_relat\_1 \\ & X2) \wedge ((v5\_ordinal1 X2) \wedge ((v1\_funct\_1 X2) \wedge (v1\_finset\_1 X2)))) \Rightarrow \\ & (k1\_ordinal4 (k1\_ordinal4 X0 X1) X2 = k1\_ordinal4 X0 (k1\_ordinal4 \\ & X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. k5\_afinsq\_1 X0 = k3\_afinsq\_1 X0 \quad (3)$$

Assume the following.

$$\forall X0. (v5\_ordinal1 (k3\_afinsq\_1 X0)) \wedge (v1\_finset\_1 (k3\_afinsq\_1 X0)) \quad (4)$$

Assume the following.

$$\forall X0. (v1\_relat\_1 (k5\_afinsq\_1 X0)) \wedge (v1\_funct\_1 (k5\_afinsq\_1 X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. k7\_afinsq\_1 X0 X1 X2 = k1\_ordinal4 \\ & (k1\_ordinal4 (k5\_afinsq\_1 X0) (k5\_afinsq\_1 X1)) (k5\_afinsq\_1 \\ & X2) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.k6\_afinsq\_1 X0 X1 = k1\_ordinal4 (k5\_afinsq\_1 X0) (k5\_afinsq\_1 X1) \quad (7)$$

**Theorem 1**

$$\forall X0.\forall X1.\forall X2.(k7\_afinsq\_1 X0 X1 X2 = k1\_ordinal4 (k5\_afinsq\_1 X0) (k6\_afinsq\_1 X1 X2)) \wedge (k7\_afinsq\_1 X0 X1 X2 = k1\_ordinal4 (k6\_afinsq\_1 X0 X1) (k5\_afinsq\_1 X2))$$