

t33\_afinsq\_2  
(TMYjr34sP7SyL47KqHgAsAhCgPuaP3gmRV7)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_afinsq\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_afinsq\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_recdef\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v2\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v5\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_rerset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (1)$$

Assume the following.

$$\forall X0.((v1\_finset\_1 X0) \wedge (v6\_membered X0)) \Rightarrow ((v1\_relat\_1 (k4\_afinsq\_2 X0)) \wedge ((v5\_relat\_1 (k4\_afinsq\_2 X0) k5\_numbers) \wedge ((v1\_funct\_1 (k4\_afinsq\_2 X0)) \wedge ((v2\_funct\_1 (k4\_afinsq\_2 X0)) \wedge ((v5\_ordinal1 (k4\_afinsq\_2 X0)) \wedge (v1\_finset\_1 (k4\_afinsq\_2 X0)))))))) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_finset\_1 X0) \wedge (v6\_membered X0)) \Rightarrow (\forall X1. \\ & ((v1\_relat\_1 X1) \wedge ((v5\_relat\_1 X1 k5\_numbers) \wedge ((v1\_funct\_1 X1) \wedge \\ & ((v5\_ordinal1 X1) \wedge (v1\_finset\_1 X1)))))) \Rightarrow ((X1 = k4\_afinsq\_2 X0) \Leftrightarrow \\ & ((k2\_rerset\_1 k5\_numbers X1 = X0) \wedge (\forall X2.(v7\_ordinal1 X2) \Rightarrow \\ & (\forall X3.(v7\_ordinal1 X3) \Rightarrow (\forall X4.(v7\_ordinal1 X4) \Rightarrow ( \\ & \forall X5.(v7\_ordinal1 X5) \Rightarrow (\neg(\neg r1\_xxreal\_0 X3 X2) \wedge ((\neg r1\_xxreal\_0 \\ & (k1\_afinsq\_1 X1) X3) \wedge ((X4 = k1\_recdef\_1 X1 X2) \wedge ((X5 = k1\_recdef\_1 \\ & X1 X3) \wedge (r1\_xxreal\_0 X5 X4)))))))))))))) \quad (3) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow ((r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0)) \quad (4)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (v1\_xxreal\_0 X0) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2. \\ & \quad (v7\_ordinal1\ X2) \Rightarrow (\forall X3.(v7\_ordinal1\ X3) \Rightarrow (\forall X4. ( \\ & \quad (v1\_finset\_1\ X4) \wedge (v6\_membered\ X4) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X0\ X3) \wedge ( \\ & \quad (\neg r1\_xxreal\_0\ (k1\_afinsq\_1\ (k4\_afinsq\_2\ X4))\ X1) \wedge ((k1\_recdef\_1 \\ & \quad (k4\_afinsq\_2\ X4)\ X1 = X3) \wedge ((k1\_recdef\_1\ (k4\_afinsq\_2\ X4)\ X2 = X0) \wedge \\ & \quad (r1\_xxreal\_0\ X2\ X1)))))))))) \end{aligned}$$