

t41\_finseq\_3 (TMKvPme-  
QEaRY93Ccw3J6ABxcGDz336tXWRm)

October 27, 2020

Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k14\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  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.

$$\forall X0.m2\_finseq\_1 (k14\_finseq\_1 X0) k5\_numbers \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(\exists X1.(v7\_ordinal1 X1) \wedge (r1\_tarski X0 (k2\_finseq\_1 X1))) \Rightarrow (\forall X1.(m2\_finseq\_1 X1 k5\_numbers) \Rightarrow ((X1 = k14\_finseq\_1 X0) \Leftrightarrow ((k10\_xtuple\_0 X1 = X0) \wedge (\forall X2.(v7\_ordinal1 X2) \Rightarrow (\forall X3.(v7\_ordinal1 X3) \Rightarrow (\forall X4.(v7\_ordinal1 X4) \Rightarrow (\forall X5.(v7\_ordinal1 X5) \Rightarrow (\neg(r1\_xxreal\_0 np\_1 X2) \wedge (\neg(r1\_xxreal\_0 X3 X2) \wedge ((r1\_xxreal\_0 X3 (k3\_finseq\_1 X1)) \wedge ((X4 = k1\_funct\_1 X1 X2) \wedge ((X5 = k1\_funct\_1 X1 X3) \wedge (r1\_xxreal\_0 X5 X4)))))))))))))) \quad (3) \end{aligned}$$

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**

$$\begin{aligned} & \forall X0. \forall X1. (v7\_ordinal1\ X1) \Rightarrow (\forall X2. (v7\_ordinal1 \\ & X2) \Rightarrow (\forall X3. (v7\_ordinal1\ X3) \Rightarrow (\forall X4. (v7\_ordinal1\ X4) \Rightarrow \\ & (\forall X5. (v7\_ordinal1\ X5) \Rightarrow (\neg(r1\_tarski\ X0\ (k2\_finseq\_1\ X1)) \wedge \\ & ((\neg r1\_xxreal\_0\ X3\ X2) \wedge ((r1\_xxreal\_0\ np\_1\ X4) \wedge ((r1\_xxreal\_0 \\ & X5\ (k3\_finseq\_1\ (k14\_finseq\_1\ X0))) \wedge ((k1\_funct\_1\ (k14\_finseq\_1 \\ & X0)\ X5 = X2) \wedge ((k1\_funct\_1\ (k14\_finseq\_1\ X0)\ X4 = X3) \wedge (r1\_xxreal\_0 \\ & X4\ X5)))))))))) \end{aligned}$$