

# t88\_seq\_4 (TMSXnVSadbDRFGqM- sWfweWg2uXaBZRXdI8E)

October 27, 2020

Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_numbers : \iota$  be given. Let  $k14\_seq\_4 : \iota \Rightarrow \iota$  be given. Let  $k20\_seq\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_binop\_2 : \iota \Rightarrow \iota$  be given. Let  $k6\_complex1 : \iota$  be given. Let  $k18\_seq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k24\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $k30\_valued\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $v1\_valued\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 \ np\_1) \wedge (m2\_subset\_1 \ np\_1 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_1 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_1 \ k1\_numbers)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 \ X0) \wedge ((\neg v1\_xboole\_0 \ X1) \wedge \\ & (m1\_subset\_1 \ X1 \ (k1\_zfmisc\_1 \ X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & \quad X2 \ X0 \ X1) \Leftrightarrow (m1\_subset\_1 \ X2 \ X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_finseq\_2 \ X1 \ X0) \Rightarrow (\forall X2. (m2\_finseq\_2 \ X2 \ X0 \ X1) \Leftrightarrow (m1\_subset\_1 \ X2 \ X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 \ X1 \ X0) \Leftrightarrow (m1\_finseq\_1 \ X1 \ X0) \quad (4)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X0 k5\_numbers) \wedge \\ & ((m1\_subset\_1 X1 (k14\_seq\_4 X0)) \wedge (m1\_subset\_1 X2 k2\_numbers))) \Rightarrow \\ & (k20\_seq\_4 X0 X1 X2 = k24\_valued\_1 X1 X2) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0. (v1\_xcmplx\_0 X0) \Rightarrow (k1\_binop\_2 X0 = k4\_xcmplx\_0 X0) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1\_subset\_1 X0 k5\_numbers) \wedge (m1\_subset\_1 \\ & X1 (k14\_seq\_4 X0))) \Rightarrow (k18\_seq\_4 X0 X1 = k30\_valued\_1 X1) \end{aligned} \quad (8)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1) \wedge (v3\_ordinal1 k4\_ordinal1) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_finseq\_2 X1 X0) \Rightarrow (\forall X2. (m2\_finseq\_2 \\ & X2 X0 X1) \Rightarrow (m2\_finseq\_1 X2 X0)) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_finseq\_1 X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ( \\ & (v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1))) \end{aligned} \quad (11)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (12)$$

Assume the following.

$$\forall X0. (v1\_xcmplx\_0 X0) \Rightarrow (m1\_subset\_1 (k1\_binop\_2 X0) k2\_numbers) \quad (13)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 k5\_numbers) \Rightarrow (m1\_finseq\_2 (k14\_seq\_4 X0) k2\_numbers) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_valued\_0 X0))) \Rightarrow \\ & (k30\_valued\_1 X0 = k24\_valued\_1 X0 (k4\_xcmplx\_0 np\_1)) \end{aligned} \quad (15)$$

Assume the following.

$$k6\_complex1 = np\_1 \quad (16)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xcmplx\_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0) \Rightarrow (v5\_relat\_1 X1 X0) \quad (18)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge (v5\_relat\_1 X0 k2\_numbers)) \Rightarrow ((v1\_relat\_1 X0) \wedge (v1\_valued\_0 X0)) \quad (19)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (20)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \Rightarrow (v1\_xboole\_0 X1)) \quad (21)$$

**Theorem 1**

$$\forall X0.(m2\_subset\_1 X0 k1\_numbers k5\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_2 X1 k2\_numbers (k14\_seq\_4 X0)) \Rightarrow (k20\_seq\_4 X0 X1 (k1\_binop\_2 k6\_complex1) = k18\_seq\_4 X0 X1))$$