

t86\_seq\_4 (TMWt-  
fYyPMpw4fyEma6LBHU81fCjGfxvMiPs)

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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  $k6\_complex1 : \iota$  be given. Let  $m1\_subset.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc.1 : \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xcmplx.0 : \iota \Rightarrow o$  be given. Let  $v1\_relat.1 : \iota \Rightarrow o$  be given. Let  $v1\_funct.1 : \iota \Rightarrow o$  be given. Let  $v1\_valued.0 : \iota \Rightarrow o$  be given. Let  $k24\_valued.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k30\_valued.1 : \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx.0 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k3\_xcmplx.0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xcmplx.0 : \iota$  be given. Let  $v1\_xboole.0 : \iota \Rightarrow o$  be given. Let  $m1\_finseq.2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_complex1 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k10\_complex1 : \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $m2\_finseq.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_finseq.1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_funct.1 : \iota \Rightarrow o$  be given. Let  $v4\_relat.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v5\_relat.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset.1 X0 (k1\_zfmisc.1 X1)) \Leftrightarrow (r1\_tarski X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1\_xcmplx.0 X0) \Rightarrow (\forall X1. ((v1\_relat.1 X1) \wedge ((v1\_funct.1 X1) \wedge (v1\_valued.0 X1)))) \Rightarrow (k24\_valued.1 (k30\_valued.1 X1) X0 = k24\_valued.1 X1 (k4\_xcmplx.0 X0)) \quad (2)$$

Assume the following.

$$k4\_xcmplx.0 (k4\_xcmplx.0 np\_1) = np\_1 \quad (3)$$

Assume the following.

$$k3\_xcmplx.0 k1\_xcmplx.0 k1\_xcmplx.0 = k4\_xcmplx.0 np\_1 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1\_xboole.0 X0) \wedge ((\neg v1\_xboole.0 X1) \wedge (m1\_subset.1 X1 (k1\_zfmisc.1 X0)))) \Rightarrow (\forall X2. (m2\_subset.1 X2 X0 X1) \Leftrightarrow (m1\_subset.1 X2 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_2 X1 X0)\Rightarrow(\forall X2.(m2\_finseq\_2 X2 X0 X1)\Leftrightarrow(m1\_subset\_1 X2 X1)) \quad (6)$$

Assume the following.

$$k7\_complex1 = k1\_xcmplx\_0 \quad (7)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1 X0 k5\_numbers)\wedge((m1\_subset\_1 X1 (k14\_seq\_4 X0))\wedge(m1\_subset\_1 X2 k2\_numbers)))\Rightarrow(k20\_seq\_4 X0 X1 X2 = k24\_valued\_1 X1 X2) \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k2\_numbers)\Rightarrow(k10\_complex1 X0 = k4\_xcmplx\_0 X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0)\Rightarrow(k4\_xcmplx\_0 (k4\_xcmplx\_0 X0) = X0) \quad (11)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_valued\_0 X0)))\Rightarrow(k30\_valued\_1 (k30\_valued\_1 X0) = X0) \quad (12)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1)\wedge(v3\_ordinal1 k4\_ordinal1) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0)\wedge(v1\_xcmplx\_0 X1))\Rightarrow(v1\_xcmplx\_0 (k3\_xcmplx\_0 X0 X1)) \quad (14)$$

Assume the following.

$$v1\_xcmplx\_0 k1\_xcmplx\_0 \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_2 X1 X0)\Rightarrow(\forall X2.(m2\_finseq\_2 X2 X0 X1)\Rightarrow(m2\_finseq\_1 X2 X0)) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0)\Rightarrow((v1\_funct\_1 X1)\wedge((v1\_finseq\_1 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0)))))) \quad (17)$$

Assume the following.

$$m1\_subset\_1 k6\_complex1 k2\_numbers \quad (18)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (19)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_valued\_0 X0)))\Rightarrow((v1\_relat\_1 (k30\_valued\_1 X0))\wedge((v1\_funct\_1 (k30\_valued\_1 X0))\wedge(v1\_valued\_0 (k30\_valued\_1 X0)))) \quad (20)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k5\_numbers)\Rightarrow(m1\_finseq\_2 (k14\_seq\_4 X0) k2\_numbers) \quad (21)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_valued\_0 X0)))\Rightarrow(k30\_valued\_1 X0 = k24\_valued\_1 X0 (k4\_xcmplx\_0 np\_1)) \quad (22)$$

Assume the following.

$$k6\_complex1 = np\_1 \quad (23)$$

Assume the following.

$$\forall X0.(v4\_funct\_1 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 X0)\Rightarrow((v1\_relat\_1 X1)\wedge(v1\_funct\_1 X1))) \quad (24)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow((v4\_relat\_1 X2 X0)\wedge(v5\_relat\_1 X2 X1)) \quad (25)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_2 X1 X0)\Rightarrow(v4\_funct\_1 X1) \quad (26)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge(v5\_relat\_1 X0 k2\_numbers))\Rightarrow((v1\_relat\_1 X0)\wedge(v1\_valued\_0 X0)) \quad (27)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0))\Rightarrow(v1\_xboole\_0 X1)) \quad (28)$$

**Theorem 1**

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