

l2_complsp2

(TMJ7nPKhJhTwVZk1yjy45CFv9NTEtWMrwHR)

October 27, 2020

Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseqop : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k29_binop_2 : \iota$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k5_funcop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k7_seq_4 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. k6_partfun1\ X0 = k4_relat_1\ X0 \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((\neg v1_xboole_0 \\ & X0) \wedge (((v1_funct_1\ X2) \wedge ((v1_funct_2\ X2\ (k2_zfmisc_1\ X0\ X0)\ X0) \wedge \\ & (m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k2_zfmisc_1\ X0\ X0) \\ & X0)))))) \wedge ((m1_subset_1\ X3\ X0) \wedge ((v1_funct_1\ X4) \wedge ((v1_funct_2 \\ & X4\ X1\ X0) \wedge (m1_subset_1\ X4\ (k1_zfmisc_1\ (k2_zfmisc_1\ X1\ X0)))))) \Rightarrow \\ & (k10_funcop_1\ X0\ X1\ X2\ X3\ X4 = k5_funcop_1\ X2\ X3\ X4) \end{aligned} \quad (2)$$

Assume the following.

$$\neg v1_xboole_0\ k2_numbers \quad (3)$$

Assume the following.

$$\forall X0. (v1_relat_1\ (k4_relat_1\ X0)) \wedge ((v4_relat_1\ (k4_relat_1\ X0)\ X0) \wedge ((v1_funct_1\ (k4_relat_1\ X0)) \wedge (v1_partfun1\ (k4_relat_1\ X0)\ X0))) \quad (4)$$

Assume the following.

$$\forall X0. (v1_partfun1\ (k6_partfun1\ X0)\ X0) \wedge (m1_subset_1\ (k6_partfun1\ X0)\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ X0))) \quad (5)$$

Assume the following.

$$(v1_funct_1 \ k29_binop_2) \wedge ((v1_funct_2 \ k29_binop_2 \ (k2_zfmisc_1 \ k2_numbers \ k2_numbers) \ k2_numbers) \wedge (m1_subset_1 \ k29_binop_2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k2_zfmisc_1 \ k2_numbers \ k2_numbers) \ k2_numbers)))) \quad (6)$$

Assume the following.

$$\forall X0.(m2_finseq_1 \ X0 \ k2_numbers) \Rightarrow (\forall X1.(v1_xcmplx_0 \ X1) \Rightarrow (k12_seq_4 \ X0 \ X1 = k4_finseqop \ k2_numbers \ k2_numbers \ X0 \ (k7_seq_4 \ X1))) \quad (7)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 \ X0) \Rightarrow (k7_seq_4 \ X0 = k5_funcop_1 \ k29_binop_2 \ X0 \ (k6_partfun1 \ k2_numbers)) \quad (8)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k2_numbers) \Rightarrow (v1_xcmplx_0 \ X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1))) \Rightarrow ((v1_partfun1 \ X2 \ X0) \Rightarrow (v1_funct_2 \ X2 \ X0 \ X1)) \quad (10)$$

Theorem 1

$$\forall X0.(m2_finseq_1 \ X0 \ k2_numbers) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ k2_numbers) \Rightarrow (k12_seq_4 \ X0 \ X1 = k4_finseqop \ k2_numbers \ k2_numbers \ X0 \ (k10_funcop_1 \ k2_numbers \ k2_numbers \ k29_binop_2 \ X1 \ (k6_partfun1 \ k2_numbers))))$$