

t76_complsp2

(TMK31TYQunttDkStVAUpN5PYL39wvVPijCX)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k8_complsp2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k3_complex1 : \iota \Rightarrow \iota$ be given. Let $k15_complex1 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k2_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 k2_numbers) \Rightarrow (k8_complsp2 X0 X1 = k15_complex1 (k8_complsp2 \\ & X1 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k2_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 k2_numbers) \Rightarrow (\forall X2.(m2_finseq_1 X2 k2_numbers) \Rightarrow (\forall X3. \\ & (m2_finseq_1 X3 k2_numbers) \Rightarrow (((k3_finseq_1 X0 = k3_finseq_1 X1) \wedge \\ & ((k3_finseq_1 X1 = k3_finseq_1 X2) \wedge (k3_finseq_1 X2 = k3_finseq_1 \\ & X3)) \Rightarrow (k8_complsp2 (k9_seq_4 X0 X1) (k9_seq_4 X2 X3) = k3_binop_2 \\ & (k3_binop_2 (k3_binop_2 (k8_complsp2 X0 X2) (k8_complsp2 X0 X3)) \\ & (k8_complsp2 X1 X2)) (k8_complsp2 X1 X3))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k3_binop_2 X0 (k15_complex1 X0) = k11_binop_2 np_2 (k3_complex1 X0)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v1_xcmplx_0 X0) \wedge ((v1_xcmplx_0 \\ & X1) \wedge (v1_xcmplx_0 X2))) \Rightarrow (k2_xcmplx_0 (k2_xcmplx_0 X0 X1) X2 = k2_xcmplx_0 \\ & X0 (k2_xcmplx_0 X1 X2)) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Leftrightarrow(m1_finseq_1 X1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(\quad (6)$$

$$k3_binop_2 X0 X1 = k2_xcmplx_0 X0 X1)$$

Assume the following.

$$\forall X0.\forall X1.((m1_finseq_1 X0 k2_numbers)\wedge(m1_finseq_1 \quad (7)$$

$$X1 k2_numbers))\Rightarrow(m1_subset_1 (k8_complsp2 X0 X1) k2_numbers)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(\quad (8)$$

$$m1_subset_1 (k3_binop_2 X0 X1) k2_numbers)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(\quad (9)$$

$$k3_binop_2 X0 X1 = k3_binop_2 X1 X0)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers)\Rightarrow(v1_xcmplx_0 X0) \quad (10)$$

Theorem 1

$$\forall X0.(m2_finseq_1 X0 k2_numbers)\Rightarrow(\forall X1.(m2_finseq_1 \quad (11)$$

$$X1 k2_numbers)\Rightarrow((k3_finseq_1 X0 = k3_finseq_1 X1)\Rightarrow(k8_complsp2$$

$$(k9_seq_4 X0 X1) (k9_seq_4 X0 X1) = k3_binop_2 (k3_binop_2 (k8_complsp2$$

$$X0 X0) (k11_binop_2 np_2 (k3_complex1 (k8_complsp2 X0 X1)))) ($$

$$k8_complsp2 X1 X1))))$$