

t81_complsp2

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $k12_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_complex1 : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 k2_numbers) \Rightarrow (\forall X2.(m2_finseq_1 X2 k2_numbers) \Rightarrow ((k3_finseq_1 \\ & X1 = k3_finseq_1 X2) \Rightarrow (k8_complsp2 X1 (k12_seq_4 X2 X0) = k5_binop_2 \\ & (k15_complex1 X0) (k8_complsp2 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (\forall X1.(m2_finseq_1 X1 k2_numbers) \Rightarrow (k3_finseq_1 (k12_seq_4 X1 X0) = k3_finseq_1 X1)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((m1_finseq_1 X0 k2_numbers) \wedge (v1_xcmplx_0 X1)) \Rightarrow (m2_finseq_1 (k12_seq_4 X0 X1) k2_numbers) \quad (5)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (v1_xcmplx_0 X0) \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k2_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k2_numbers) \Rightarrow (\forall X2.(m2_finseq_1 X2 k2_numbers) \Rightarrow (\forall X3. \\ & (m2_finseq_1 X3 k2_numbers) \Rightarrow (\forall X4.(m2_finseq_1 X4 k2_numbers) \Rightarrow \\ & (((k3_finseq_1 X2 = k3_finseq_1 X3) \wedge (k3_finseq_1 X3 = k3_finseq_1 \\ & X4)) \Rightarrow (k8_complsp2 X2 (k9_seq_4 (k12_seq_4 X3 X0) (k12_seq_4 X4 \\ & X1)) = k3_binop_2 (k5_binop_2 (k15_complex1 X0) (k8_complsp2 X2 \\ & X3)) (k5_binop_2 (k15_complex1 X1) (k8_complsp2 X2 X4)))))))) \end{aligned}$$