t48_complex2 (TMN1YLpeKdbxZndw8aPjqaSDJJPCM2DsTic)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_numbers : \iota$ be given. Let $k1\_complex2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15\_complex1 : \iota \Rightarrow \iota$ be given. Let $k14\_complex1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k2\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k2\_numbers) \Rightarrow (k1\_complex2\ X0\ (k8\_complex1\ X1\ X2) = k8\_complex1\ (k1\_complex2\ X0\ X1)\ (k1\_complex2\ X0\ X2)))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_xcmplx\_0\ X0) \wedge ((v1\_xcmplx\_0\ X1) \wedge (v1\_xcmplx\_0\ X2))) \Rightarrow (k2\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)\ X2 = k2\_xcmplx\_0\ X0\ (k2\_xcmplx\_0\ X1\ X2)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_xcmplx\_0\ X0) \wedge ((v1\_xcmplx\_0\ X1) \wedge (v1\_xcmplx\_0\ X2))) \Rightarrow (k3\_xcmplx\_0\ (k2\_xcmplx\_0\ X0\ X1)\ X2 = k2\_xcmplx\_0\ (k3\_xcmplx\_0\ X0\ X2)\ (k3\_xcmplx\_0\ X1\ X2)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k2\_numbers) \wedge (m1\_subset\_1\ X1\ k2\_numbers)) \Rightarrow (k8\_complex1\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k15\_complex1\ X0 = k14\_complex1\ X0) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k2\_numbers) \wedge (m1\_subset\_1\ X1\ k2\_numbers)) \Rightarrow (m1\_subset\_1\ (k8\_complex1\ X0\ X1)\ k2\_numbers) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(m1\_subset\_1\ (k1\_complex2\ X0\ X1)\ k2\_numbers) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ (k14\_complex1\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(\forall X1.(v1\_xcmplx\_0\ X1)\Rightarrow(k1\_complex2\ X0\ X1 = k3\_xcmplx\_0\ X0\ (k15\_complex1\ X1))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k2\_numbers)\wedge(m1\_subset\_1\ X1\ k2\_numbers))\Rightarrow(k8\_complex1\ X0\ X1 = k8\_complex1\ X1\ X0) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(k2\_xcmplx\_0\ X0\ X1 = k2\_xcmplx\_0\ X1\ X0) \tag{11}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{12}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k2\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k2\_numbers)\Rightarrow(k1\_complex2\ (k8\_complex1\ X0\ X1)\ (k8\_complex1\ X0\ X1) = k8\_complex1\ (k8\_complex1\ (k8\_complex1\ (k1\_complex2\ X0\ X0)\ (k1\_complex2\ X0\ X1))\ (k1\_complex2\ X1\ X0))\ (k1\_complex2\ X1\ X1)))$$