t31_valued_2 (TM-daHm2aTjx3oDNPgwDSm2RWWUuus2A4xLT)

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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 $k14\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k30\_valued\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_valued\_0\ X0))) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge (v1\_funct\_1\ X1)) \Rightarrow (((k9\_xtuple\_0\ X0 = k9\_xtuple\_0\ X1) \wedge (\forall X2.(X2 \in k9\_xtuple\_0\ X0) \Rightarrow (k1\_funct\_1\ X1\ X2 = k4\_xcmplx\_0\ (k1\_funct\_1\ X0\ X2)))) \Rightarrow (X1 = k30\_valued\_1\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_xcmplx\_0\ X1) \Rightarrow (\forall X2.((v1\_relat\_1\ X2) \wedge ((v1\_funct\_1\ X2) \wedge (v1\_valued\_0\ X2))) \Rightarrow (k1\_funct\_1\ (k14\_valued\_2\ X2\ X1)\ X0 = k7\_xcmplx\_0\ (k1\_funct\_1\ X2\ X0)\ X1)) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v1\_funct\_1\ X1) \wedge (v1\_valued\_0\ X1))) \Rightarrow (k9\_xtuple\_0\ (k14\_valued\_2\ X1\ X0) = k9\_xtuple\_0\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (\forall X1.(v1\_xcmplx\_0\ X1) \Rightarrow (k7\_xcmplx\_0\ X0\ (k4\_xcmplx\_0\ X1) = k4\_xcmplx\_0\ (k7\_xcmplx\_0\ X0\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X0) \wedge ((v1\_funct\_1\ X0) \wedge (v1\_valued\_0\ X0))) \Rightarrow (v1\_xcmplx\_0\ (k1\_funct\_1\ X0\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_valued\_0\ X0)))\wedge(v1\_xcmplx\_0\ X1))\Rightarrow((v1\_relat\_1\ (k14\_valued\_2\ X0\ X1))\wedge((v1\_funct\_1\ (k14\_valued\_2\ X0\ X1))\wedge(v1\_valued\_0\ (k14\_valued\_2\ X0\ X1)))) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)) \tag{7}$$

Theorem 1

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v1\_valued\_0\ X1)))\Rightarrow(k14\_valued\_2\ X1\ (k4\_xcmplx\_0\ X0) = k30\_valued\_1\ (k14\_valued\_2\ X1\ X0)))$$