

t28\_valued\_2  
(TMYQV9d2w5TeHHRzUT3UGqfcdKESuXtfDgj)

October 27, 2020

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  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k14\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k5\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $k24\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k7\_xcmplx\_0 np\_1 X0 = k5\_xcmplx\_0 X0) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (v1\_xcmplx\_0 (k5\_xcmplx\_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_valued\_0 X0))) \wedge (v1\_xcmplx\_0 X1)) \Rightarrow ((v1\_relat\_1 (k24\_valued\_1 X0 X1)) \wedge (v1\_funct\_1 (k24\_valued\_1 X0 X1))) \quad (3)$$

Assume the following.

$$\forall X0.(((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_valued\_0 X0))) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (\forall X2.((v1\_relat\_1 X2) \wedge (v1\_funct\_1 X2)) \Rightarrow ((X2 = k24\_valued\_1 X0 X1) \Leftrightarrow ((k9\_xtuple\_0 X2 = k9\_xtuple\_0 X0) \wedge (\forall X3.(X3 \in k9\_xtuple\_0 X2) \Rightarrow (k1\_funct\_1 X2 X3 = k3\_xcmplx\_0 X1 (k1\_funct\_1 X0 X3)))))))) \quad (4)$$

Assume the following.

$$\forall X0.(((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_valued\_0 X0))) \Rightarrow (\forall X1.(v1\_xcmplx\_0 X1) \Rightarrow (k14\_valued\_2 X0 X1 = k24\_valued\_1 X0 (k7\_xcmplx\_0 np\_1 X1)))) \quad (5)$$

**Theorem 1**

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