

# t56\_valued\_2 (TMLGo- Vct8JsvwPFVcGhaaVopKVcCMkQ9hnV)

October 27, 2020

Let  $v1\_valued\_2 : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k47\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k24\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k41\_valued\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (v1\_xcmplx\_0 (k5\_xcmplx\_0 X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v1\_valued\_2 X0) \wedge ((v1\_relat\_1 \\ X1) \wedge ((v5\_relat\_1 X1 X0) \wedge (v1\_funct\_1 X1))) \wedge (v1\_xcmplx\_0 X2)) \Rightarrow \\ ((v1\_relat\_1 (k47\_valued\_2 X0 X1 X2)) \wedge (v1\_funct\_1 (k47\_valued\_2 \\ X0 X1 X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_valued\_2 X0) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (( \\ v5\_relat\_1 X1 X0) \wedge (v1\_funct\_1 X1))) \Rightarrow (\forall X2.(v1\_xcmplx\_0 \\ X2) \Rightarrow (k47\_valued\_2 X0 X1 X2 = k41\_valued\_2 X0 X1 (k5\_xcmplx\_0 X2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_valued\_2 X0) \Rightarrow (\forall X1.((v1\_relat\_1 X1) \wedge (( \\ v5\_relat\_1 X1 X0) \wedge (v1\_funct\_1 X1))) \Rightarrow (\forall X2.(v1\_xcmplx\_0 \\ X2) \Rightarrow (\forall X3.((v1\_relat\_1 X3) \wedge (v1\_funct\_1 X3)) \Rightarrow ((X3 = k41\_valued\_2 \\ X0 X1 X2) \Leftrightarrow ((k9\_xtuple\_0 X3 = k9\_xtuple\_0 X1) \wedge (\forall X4.(X4 \in k9\_xtuple\_0 \\ X3) \Rightarrow (k1\_funct\_1 X3 X4 = k24\_valued\_1 (k1\_funct\_1 X1 X4) X2))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ (k2\_zfmisc\_1 X0 X1))) \Rightarrow ((v4\_relat\_1 X2 X0) \wedge (v5\_relat\_1 X2 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))\Rightarrow(v1\_relat\_1 X2) \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(v1\_valued\_2 X2)\Rightarrow(\forall X3. \\ & (v1\_xcmplx\_0 X3)\Rightarrow(\forall X4.((v1\_funct\_1 X4)\wedge(m1\_subset\_1 \\ & X4 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X2))))\Rightarrow((X1 \in k9\_xtuple\_0 (k47\_valued\_2 \\ & X2 X4 X3))\Rightarrow(k1\_funct\_1 (k47\_valued\_2 X2 X4 X3) X1 = k24\_valued\_1 \\ & (k1\_funct\_1 X4 X1) (k5\_xcmplx\_0 X3)))))) \end{aligned}$$