

t22\_xcplx\_1 (TMJPPpj-  
GYaa3QNMFXQRi1EC7KpgEn3fs9Ra)

October 27, 2020

Let  $v1\_xcplx\_0 : \iota \Rightarrow o$  be given. Let  $k6\_xcplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_xcplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcplx\_0 X1) \Rightarrow (\forall X2. \\ (v1\_xcplx\_0 X2) \Rightarrow (k6\_xcplx\_0 (k6\_xcplx\_0 X0 X1) X2 = k6\_xcplx\_0 \\ (k6\_xcplx\_0 X0 X2) X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xcplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcplx\_0 X1) \Rightarrow (k6\_xcplx\_0 X0 (k6\_xcplx\_0 X0 X1) = X1)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcplx\_0 X0) \wedge (v1\_xcplx\_0 X1)) \Rightarrow (v1\_xcplx\_0 (k6\_xcplx\_0 X0 X1)) \quad (3)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(v1\_xcplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcplx\_0 X1) \Rightarrow (\forall X2. \\ (v1\_xcplx\_0 X2) \Rightarrow (k6\_xcplx\_0 X0 X1 = k6\_xcplx\_0 (k6\_xcplx\_0 X0 X2) \\ (k6\_xcplx\_0 X1 X2)))) \end{aligned}$$