

# t31\_xcplx\_1

(TMbNf1XZWuhDimZWQKDXfxMY8ufBbVNmWoj)

October 27, 2020

Let  $v1\_xcplx\_0 : \iota \Rightarrow o$  be given. Let  $k2\_xcplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_xcplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xcplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcplx\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xcplx\_0 X2) \Rightarrow (k6\_xcplx\_0 (k2\_xcplx\_0 X0 X1) X2 = k2\_xcplx\_0 \\ & (k6\_xcplx\_0 X0 X2) X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xcplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcplx\_0 X1) \Rightarrow (k6\_xcplx\_0 X0 (k6\_xcplx\_0 X0 X1) = X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcplx\_0 X0) \wedge (v1\_xcplx\_0 X1)) \Rightarrow (v1\_xcplx\_0 (k6\_xcplx\_0 X0 X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcplx\_0 X0) \wedge (v1\_xcplx\_0 X1)) \Rightarrow (k2\_xcplx\_0 X0 X1 = k2\_xcplx\_0 X1 X0) \tag{4}$$

## Theorem 1

$$\begin{aligned} & \forall X0.(v1\_xcplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcplx\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xcplx\_0 X2) \Rightarrow (k2\_xcplx\_0 X0 X1 = k6\_xcplx\_0 (k2\_xcplx\_0 X0 X2) \\ & (k6\_xcplx\_0 X2 X1)))) \end{aligned}$$