

# t83\_xcplx\_1

(TMUPdhfFHWx9MCRdEVGtbhPbVWpMwno46KS)

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Let  $v1\_xcplx\_0 : \iota \Rightarrow o$  be given. Let  $k7\_xcplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xcplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcplx\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xcplx\_0 X2) \Rightarrow (\forall X3.(v1\_xcplx\_0 X3) \Rightarrow (k7\_xcplx\_0 \\ & (k7\_xcplx\_0 X0 X1) (k7\_xcplx\_0 X2 X3) = k7\_xcplx\_0 (k3\_xcplx\_0 \\ & X0 X3) (k3\_xcplx\_0 X1 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xcplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcplx\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xcplx\_0 X2) \Rightarrow (k7\_xcplx\_0 X0 (k7\_xcplx\_0 X1 X2) = k7\_xcplx\_0 \\ & (k3\_xcplx\_0 X0 X2) X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcplx\_0 X0) \wedge (v1\_xcplx\_0 X1)) \Rightarrow (v1\_xcplx\_0 (k7\_xcplx\_0 X0 X1)) \tag{3}$$

## Theorem 1

$$\begin{aligned} & \forall X0.(v1\_xcplx\_0 X0) \Rightarrow (\forall X1.(v1\_xcplx\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xcplx\_0 X2) \Rightarrow (\forall X3.(v1\_xcplx\_0 X3) \Rightarrow (k7\_xcplx\_0 \\ & (k3\_xcplx\_0 X0 X1) (k3\_xcplx\_0 X2 X3) = k7\_xcplx\_0 (k3\_xcplx\_0 \\ & (k7\_xcplx\_0 X0 X2) X1) X3)))) \end{aligned}$$