

# t40\_complex2 (TMc- tacPvTveesZRVVVfY1xFuqzHQRARPmZ6)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_numbers : \iota$  be given. Let  $k1\_complex2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k2\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 k2\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k2\_numbers) \Rightarrow (k1\_complex2 \\ & (k9\_complex1 X0 X1) X2 = k9\_complex1 X0 (k1\_complex2 X1 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k2\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 k2\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k2\_numbers) \Rightarrow (k1\_complex2 \\ & (k8\_complex1 X0 X1) X2 = k8\_complex1 (k1\_complex2 X0 X2) (k1\_complex2 \\ & X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((m1\_subset\_1 X0 k2\_numbers) \wedge (m1\_subset\_1 X1 k2\_numbers)) \Rightarrow (m1\_subset\_1 (k9\_complex1 X0 X1) k2\_numbers) \quad (3)$$

## Theorem 1

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 k2\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ & X1 k2\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1 X2 k2\_numbers) \Rightarrow (\forall X3. \\ & (m1\_subset\_1 X3 k2\_numbers) \Rightarrow (\forall X4.(m1\_subset\_1 X4 k2\_numbers) \Rightarrow \\ & (k1\_complex2 (k8\_complex1 (k9\_complex1 X0 X1) (k9\_complex1 X2 \\ & X3)) X4 = k8\_complex1 (k9\_complex1 X0 (k1\_complex2 X1 X4) (k9\_complex1 \\ & X2 (k1\_complex2 X3 X4)))))))) \end{aligned}$$