t65_intpro_1 (TMUypus1cpchaY3LSKFdBBtMxuAfNxEKRet)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_intpro\_1 : \iota$ be given. Let $k3\_intpro\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_intpro\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_intpro\_1 : \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_intpro\_1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_intpro\_1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_intpro\_1) \Rightarrow (k3\_intpro\_1\ (k5\_intpro\_1\ X0\ (k5\_intpro\_1\ X1\ X2))\ (k5\_intpro\_1\ X1\ (k5\_intpro\_1\ X0\ X2)) \in k8\_intpro\_1))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_intpro\_1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_intpro\_1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_intpro\_1) \Rightarrow ((k3\_intpro\_1\ X0\ X1 \in k8\_intpro\_1) \Rightarrow (k3\_intpro\_1\ (k5\_intpro\_1\ X2\ X0)\ (k5\_intpro\_1\ X2\ X1) \in k8\_intpro\_1)))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_intpro\_1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_intpro\_1) \Rightarrow (k3\_intpro\_1\ (k5\_intpro\_1\ X0\ X1)\ (k5\_intpro\_1\ X1\ X0) \in k8\_intpro\_1)) \tag{3}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_intpro\_1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_intpro\_1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_intpro\_1) \Rightarrow (((k3\_intpro\_1\ X0\ X1 \in k8\_intpro\_1) \wedge (k3\_intpro\_1\ X1\ X2 \in k8\_intpro\_1)) \Rightarrow (k3\_intpro\_1\ X0\ X2 \in k8\_intpro\_1)))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k1\_intpro\_1) \wedge (m1\_subset\_1\ X1\ k1\_intpro\_1)) \Rightarrow (m1\_subset\_1\ (k5\_intpro\_1\ X0\ X1)\ k1\_intpro\_1) \tag{5}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k1\_intpro\_1) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_intpro\_1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_intpro\_1) \Rightarrow (k3\_intpro\_1\ (k5\_intpro\_1\ X0\ (k5\_intpro\_1\ X1\ X2))\ (k5\_intpro\_1\ (k5\_intpro\_1\ X0\ X1)\ X2) \in k8\_intpro\_1)))$$