t55_flang_1 (TMHyb6DMMHuVZfVH7jnV1LxdmnkNMKVu7DD)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_catalan2 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k2\_flang\_1 : \iota \Rightarrow \iota$ be given. Let $k8\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \Rightarrow (((r1\_tarski\ X1\ (k8\_flang\_1\ X0\ X2)) \wedge (r1\_tarski\ X3\ (k8\_flang\_1\ X0\ X2))) \Rightarrow (r1\_tarski\ (k6\_flang\_1\ X0\ X1\ X3)\ (k8\_flang\_1\ X0\ X2))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (r1\_tarski\ (k7\_flang\_1\ X0\ X1\ X2)\ (k8\_flang\_1\ X0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow ((k2\_flang\_1\ X0 \in X1) \Rightarrow (k2\_flang\_1\ X0 \in k7\_flang\_1\ X0\ X1\ X2))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \Rightarrow ((k2\_flang\_1\ X0 \in X1) \Rightarrow ((r1\_tarski\ X2\ (k6\_flang\_1\ X0\ X2\ X1)) \wedge (r1\_tarski\ X2\ (k6\_flang\_1\ X0\ X1\ X2))))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ X0\ X0 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0)))\Rightarrow(m1\_subset\_1\ (k8\_flang\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0)))\wedge(v7\_ordinal1\ X2))\Rightarrow(m1\_subset\_1\ (k7\_flang\_1\ X0\ X1\ X2)\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1\_tarski\ X0\ X1)\wedge(r1\_tarski\ X1\ X0)) \tag{8}$$

Theorem 1

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0)))\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow((k2\_flang\_1\ X0 \in X1)\Rightarrow((k8\_flang\_1\ X0\ X1 = k6\_flang\_1\ X0\ (k8\_flang\_1\ X0\ X1)\ (k7\_flang\_1\ X0\ X1\ X2))\wedge(k8\_flang\_1\ X0\ X1 = k6\_flang\_1\ X0\ (k7\_flang\_1\ X0\ X1\ X2)\ (k8\_flang\_1\ X0\ X1)))))$$