t46_flang_3 (TM-SEtfmPT9bqLqrGWJdMjGYNBYbdtuf2vbN)

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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 $k8\_afinsq\_1 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k5\_afinsq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_flang\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_flang\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $k7\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_catalan2 : \iota \Rightarrow \iota$ be given. Let $k8\_flang\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X1)))\Rightarrow(\forall X3.(v7\_ordinal1\ X3)\Rightarrow((k5\_afinsq\_1\ X0 \in k7\_flang\_1\ X1\ X2\ X3)\Leftrightarrow((k5\_afinsq\_1\ X0 \in X2)\wedge(((k2\_flang\_1\ X1 \in X2)\wedge(\neg r1\_xxreal\_0\ X3\ np\_\_1))\vee(X3 = np\_\_1)))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0)))\Rightarrow((k5\_afinsq\_1\ X1 \in k8\_flang\_1\ X0\ X2)\Leftrightarrow(k5\_afinsq\_1\ X1 \in X2)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X0)))\Rightarrow(\forall X3.(v7\_ordinal1\ X3)\Rightarrow((X1 \in k1\_flang\_3\ X0\ X2\ X3)\Leftrightarrow(\exists X4.(v7\_ordinal1\ X4)\wedge((r1\_xxreal\_0\ X3\ X4)\wedge(X1 \in k7\_flang\_1\ X0\ X2\ X4))))) \tag{3}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\neg(r1\_xxreal\_0\ X0\ np\_\_1)\wedge((X0 \neq k6\_numbers)\wedge(X0 \neq np\_\_1))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k3\_catalan2\ X0)))\Rightarrow(k7\_flang\_1\ X0\ X1\ np\_\_1 = X1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X0)))\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow((k1\_flang\_3\ X0\ X1\ X2 = k8\_flang\_1\ X0\ X1)\Leftrightarrow((k2\_flang\_1\ X0 \in X1)\vee(X2 = k6\_numbers))))) \tag{6}$$

Assume the following.

$$\forall X0.k3\_catalan2\ X0 = k8\_afinsq\_1\ X0 \tag{7}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k8\_afinsq\_1\ X1)))\Rightarrow(\forall X3.(v7\_ordinal1\ X3)\Rightarrow((k5\_afinsq\_1\ X0 \in k1\_flang\_3\ X1\ X2\ X3)\Leftrightarrow((k5\_afinsq\_1\ X0 \in X2)\wedge((k2\_flang\_1\ X1 \in X2)\vee(r1\_xxreal\_0\ X3\ np\_\_1)))))$$